

- 1. (v. 2.2) Control Server User Guide 2
 - 1.1 (v. 2.2) Automation Processes 4
 - 1.1.1 (v. 2.2) Automation Process Details 12
 - 1.1.2 (v. 2.2) Automation Process Run 21
 - 1.1.3 (v. 2.2) Dedicated Automation Processes 28
 - 1.1.4 (v. 2.2) Capabilities: Automation Process-to-Node Communication 30
 - 1.2 (v. 2.2) Runs Management 32
 - 1.3 (v. 2.2) Schedules 37
 - 1.3.1 (v. 2.2) Schedule an Automation Process 38
 - 1.3.2 (v. 2.2) Schedule Statuses Life Cycle 46
 - 1.4 (v. 2.2) Data Stores 48
 - 1.4.1 (v. 2.2) Create a New Data Store 51
 - 1.4.2 (v. 2.2) Data Store Details 55
 - 1.5 (v. 2.2) Secret Vault 62
 - 1.6 (v. 2.2) Node Management 70
 - 1.6.1 (v. 2.2) Node Details 73
 - 1.6.2 (v. 2.2) Node Features 85
 - 1.6.2.1 (v. 2.2) WebDriver Version Update 96
 - 1.7 (v. 2.2) Machine Learning 101
 - 1.7.1 (v. 2.2) Document Sets 102
 - 1.7.1.1 (v. 2.2) Details 110
 - 1.7.1.2 (v. 2.2) Documents 112
 - 1.7.1.3 (v. 2.2) Runs 125
 - 1.7.2 (v. 2.2) Models 127
 - 1.8 (v. 2.2) Workspace 133
 - 1.8.1 (v. 2.2) Process Human Task 135
 - 1.8.2 (v. 2.2) Tagging Overview 139
 - 1.9 (v. 2.2) Administration 143
 - 1.9.1 (v. 2.2) Human Task Types 144
 - 1.9.1.1 (v. 2.2) Document Types 148
 - 1.9.1.2 (v. 2.2) Document Type Settings JSON Structure 155
 - 1.9.1.3 (v. 2.2) Playground 159
 - 1.9.2 (v. 2.2) User Management 164
 - 1.9.3 (v. 2.2) Group Management 170
 - 1.9.3.1 (v. 2.2) Role Permissions 176
 - 1.9.3.2 (v. 2.2) Security Access 185
 - 1.9.4 (v. 2.2) Notification Management 189
 - 1.9.5 (v. 2.2) Control Server Configuration 200
 - 1.9.6 (v. 2.2) Control Server Logs 205
 - 1.9.7 (v. 2.2) Activity Log 210
 - 1.9.8 (v. 2.2) License Management 213

(v. 2.2) Control Server User Guide

The EasyRPA Control Server is the heart of the EasyRPA platform used for automation. The Control Server User Guide describes how EasyRPA Control Server operates.

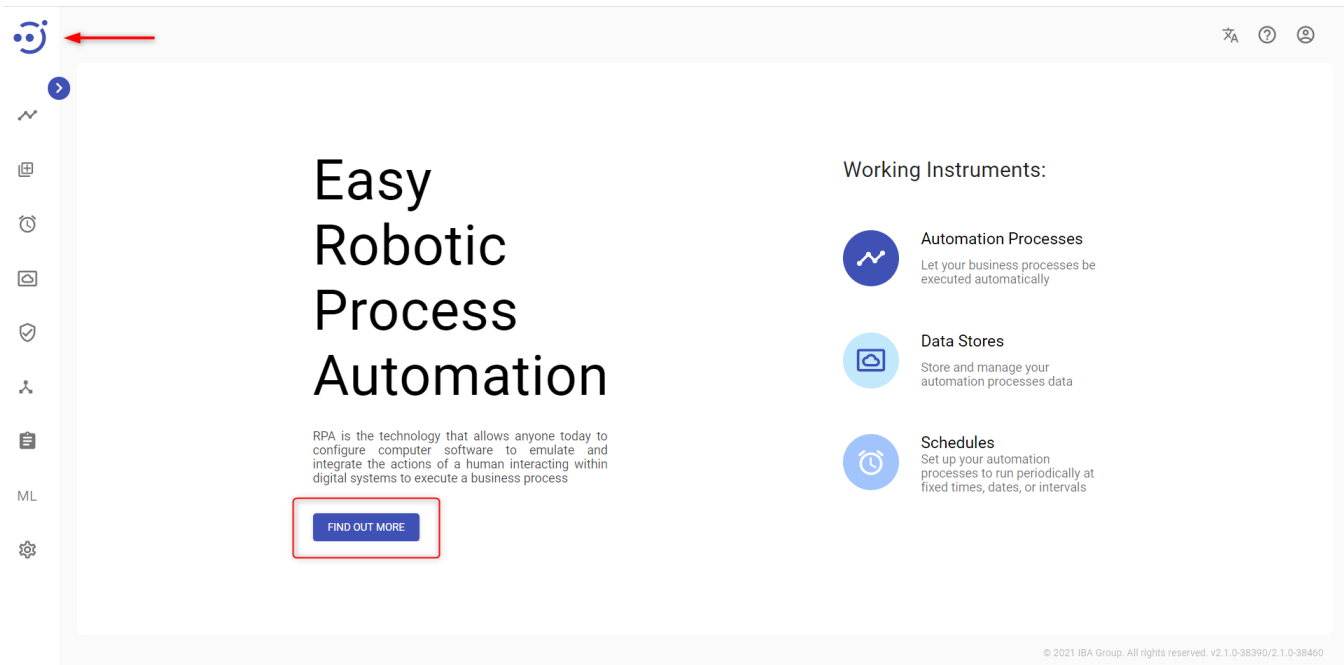
In this section, you will learn how to work within the following EasyRPA Control Server modules:

- (v. 2.2) Automation Processes
 - (v. 2.2) Automation Process Details
 - (v. 2.2) Automation Process Run
 - (v. 2.2) Dedicated Automation Processes
 - (v. 2.2) Capabilities: Automation Process-to-Node Communication
- (v. 2.2) Runs Management
- (v. 2.2) Schedules
 - (v. 2.2) Schedule an Automation Process
 - (v. 2.2) Schedule Statuses Life Cycle
- (v. 2.2) Data Stores
 - (v. 2.2) Create a New Data Store
 - (v. 2.2) Data Store Details
- (v. 2.2) Secret Vault
- (v. 2.2) Node Management
 - (v. 2.2) Node Details
 - (v. 2.2) Node Features
 - (v. 2.2) WebDriver Version Update
- (v. 2.2) Machine Learning
 - (v. 2.2) Document Sets
 - (v. 2.2) Details
 - (v. 2.2) Documents
 - (v. 2.2) Runs
 - (v. 2.2) Models
- (v. 2.2) Workspace
 - (v. 2.2) Process Human Task
 - (v. 2.2) Tagging Overview
- (v. 2.2) Administration
 - (v. 2.2) Human Task Types
 - (v. 2.2) Document Types
 - (v. 2.2) Document Type Settings JSON Structure
 - (v. 2.2) Playground
 - (v. 2.2) User Management
 - (v. 2.2) Group Management
 - (v. 2.2) Role Permissions
 - (v. 2.2) Security Access
 - (v. 2.2) Notification Management
 - (v. 2.2) Control Server Configuration
 - (v. 2.2) Control Server Logs
 - (v. 2.2) Activity Log
 - (v. 2.2) License Management

How to Get Context Help

To view the Control Server User Guide for the EasyRPA Control Server, you need to:

1. Navigate to the start page.
2. Click **Find Out More**.



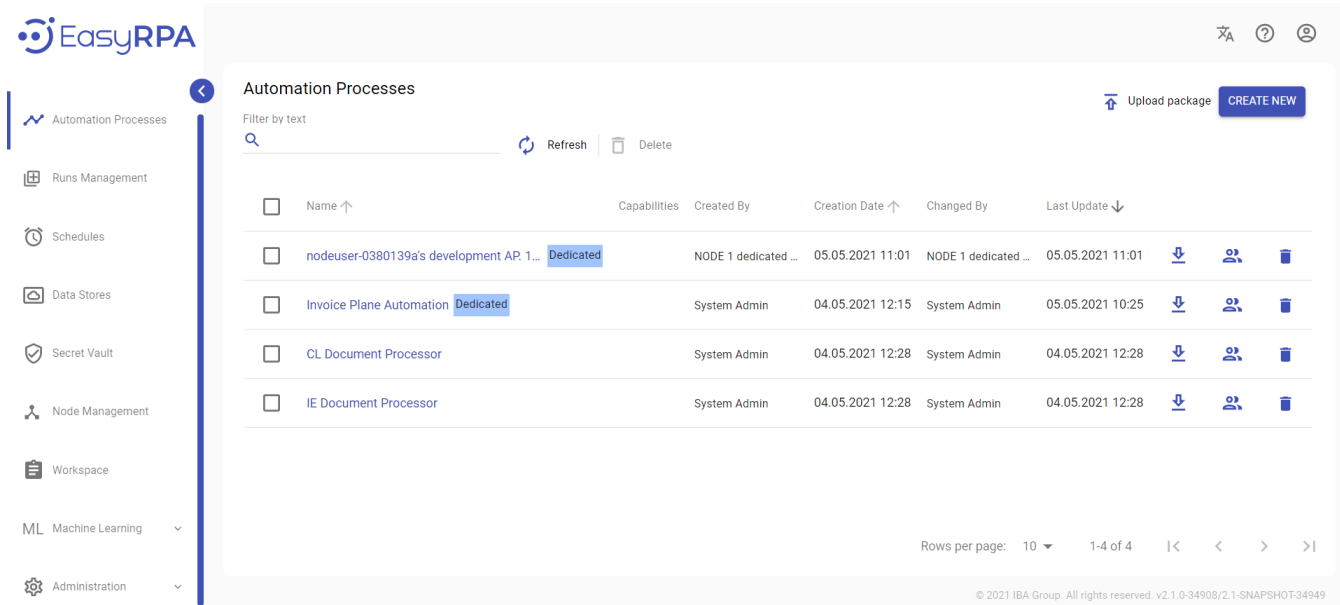
You can also click the F1 button, to see the context help for the current page.

(v. 2.2) Automation Processes

- [Create a new Automation Process](#)
- [Edit Automation Process](#)
- [Upload Automation Process Package](#)

The Automation Processes module displays a catalog of automation processes defined by the system and ready to run.

There are several sample automation processes supplied with the EasyRPA Control Server, such as Debtor Analysis, Invoice Plane Automation, etc. You can refer to the [RPA Samples Library](#) for more details on how to set up the automation processes samples.



To access the Automation Processes module, you need to be granted AutomationProcess-READ permission. See [\(v. 2.2\) Role Permissions](#).

Manage existing Automation Processes

The EasyRPA control server allows managing the automation processes catalog.

Columns Description

- **Name** - the automation process name.
- **Capabilities** - the list of capabilities required for the automation process execution.
- **Created By** - the name of the user, who created the automation process.
- **Creation Date** - the date and time of the automation process creation.
- **Changed by** - the name of the user, who changed the automation process details.
- **Last Update** - the last date and time when the automation process was changed.

Filter by text

Filtering allows you to search the automation process by its name and author (columns Name, Created By respectively).

Sorting

Ascending/descending sorting is allowed by the columns: Name, Creation Date, Last Update.

Control Icons

- **Download** - to download the JSON file containing the automation process details, configuration parameters, and input data. Required Permission: AutomationProcess-READ. A full automation process package cannot be downloaded from Control Server directly but can be provided by the support team upon request.
- **Delete** - to delete the automation process. Required Permission: AutomationProcess-DELETE.

Create a new Automation Process

To create a new Automation Process, you need to:

- Navigate to the **Automation Processes** module.
- Click **Create New**.

The screenshot displays the 'Automation Processes' module interface. At the top right, there is a 'CREATE NEW' button highlighted with a red box. Below it, there is a search bar and a 'Refresh' button. The main area contains a table with the following columns: Name, Capabilities, Created By, Creation Date, Changed By, and Last Update. The table lists four automation processes, each with a 'Dedicated' toggle button. The first process is 'nodeuser-0380139a's development AP. 1...' created by 'NODE 1 dedicated ...' on '05.05.2021 11:01'. The second is 'Invoice Plane Automation' created by 'System Admin' on '04.05.2021 12:15'. The third is 'CL Document Processor' created by 'System Admin' on '04.05.2021 12:28'. The fourth is 'IE Document Processor' created by 'System Admin' on '04.05.2021 12:28'. At the bottom right, there is a pagination control showing 'Rows per page: 10' and '1-4 of 4'.

- Fill in **General** automation process details:
 - a unique **name** to distinguish the automation process (required).
 - a short **description** of the automation process functionalities (optional).
 - a name of the **module class** for execution (optional).

⚠ It is important to indicate module class if there are several in the package. Otherwise, the system will execute the first found module class from the package.

- **capabilities** - capability labels required for the automation process execution. You can choose available capabilities in the dropdown (optional).
 - or **dedicated nodes** where the dedicated automation process is ready to run (available if the Dedicated toggle is on).
 - switch the **Dedicated** toggle button, if the automation process is dedicated. See [Dedicated Automation Process](#).
- Fill in the **Repository Id Components**:
 - Group Id (required, *example: eu.ibagroup*);
 - Artifact Id (required, *example: easy-rpa-sample*);
 - Version Id (required, *example: 0.1-SNAPSHOT*);
 - Classifier - a unique identifier that reflects the type of resource being loaded (optional).

You can find the necessary module class and repository id values for all the available samples in the corresponding section. See RPA Samples Library.

Automation Processes / New Automation Process

New Automation Process ← Back to list

CANCEL CREATE NEW UPLOAD

Details

General	Repository Id Components
Name * Invoice Plane Automation	Group Id * eu.ibagroup
Description Extracts unique products from invoice planes and stor...	Artifact Id * easy-rpa-sample
Module Class eu.ibagroup.easyrpa.demo.invoiceplane.InvoicePlane...	Version Id * 0.1-SNAPSHOT
Capabilities AP_RUN X	Classifier full
<input type="checkbox"/> Dedicated	

© 2021 IBA Group. All rights reserved. v2.1.0-34908/Z.1-SNAPSHOT-34949

- Click **Create New**.

If there are capabilities required to start the automation process they are displayed for each task.

To create a new automation process, you need to be granted AutomationProcess-CREATE permission. See (v. 2.2) [Role Permissions](#).

Upload Automation Process via JSON File

The other way to create the automation process is to **Upload File** with an automation process configuration in JSON format.

To upload a new Automation Process JSON file, you need to:

- Click **Upload**.

Automation Processes / New Automation Process

New Automation Process ← Back to list

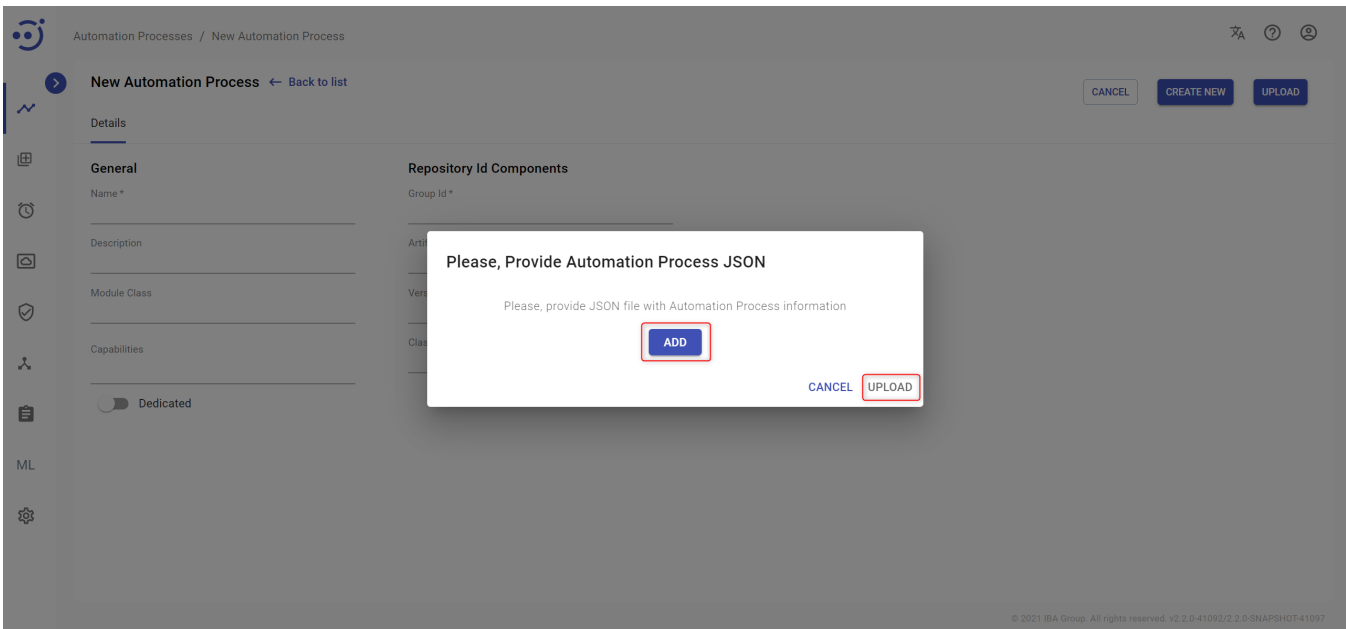
CANCEL CREATE NEW UPLOAD

Details

General	Repository Id Components
Name *	Group Id *
Description	Artifact Id *
Module Class	Version Id *
Capabilities	Classifier
<input type="checkbox"/> Dedicated	

© 2021 IBA Group. All rights reserved. v2.2.0-41092/Z.2.0-SNAPSHOT-41097

- Click **Add** and choose the JSON configuration file from the file system.
- Click **Upload**.



JSON file example:

```

AP Invoice Plane Automation Demo 14.03.2021 23_34.json
1  {
2    "name" : "Invoice Plane Automation Demo",
3    "repositoryId" :
4    "eu.ibagroup.samples.ap:easy-rpa-invoiceplane-ap:jar:2.0-SNAPSHOT",
5    "moduleClass" :
6    "eu.ibagroup.easyrpa.ap.productsreader.ProductsReaderAp",
7    "dedicated" : false,
8    "capabilities" : [ "NODE4" ],
9    "dedicatedNodes" : [ ],
10   "params" : [ {
11     "key" : "key value",
12     "value" : "value1"
13   }, {
14     "key" : "invoiceplane.client.url",
15     "value" : "http://0.224.0.32:8084/invoiceplane"
16   } ],
17   "input" : {
18     "variables" : { },
19     "_id" : "5123dab1-4c23-43a1-a73d-44875df9cc39"
20   }
21 }

```

To upload an automation process, you need to be granted AutomationProcess-CREATE permission. See (v. 2.2) [Role Permissions](#).

Edit Automation Process

Key information about a particular automation process is available at the pop-up panel at the right by clicking on the corresponding row with the automation process.

You can edit the displayed fields and save the result by clicking the **Update** button. Required Permission: AutomationProcess-UPDATE. See (v. 2.2) [Role Permissions](#).

The pop-up panel contains the following information:

- Name - the automation process name.
- Description - a short description of the automation process functionalities.
- Module Class - the name of the module class for execution (*name example: eu.ibagroup.easyrpa.demo.debtors.DebtorsAnalysisFullDemoAp*)

! It is important to indicate module class if there are several in the package. Otherwise, the system will execute the first found module class from the package.

- Capabilities - the list of capability labels required for the automation process execution. You can choose available capabilities in the dropdown (the field is available only for APs with defined capabilities).
- Dedicated Nodes (available if the Dedicated toggle is on) - the list of dedicated nodes where the dedicated automation process is ready to run.
- Dedicated - the toggle allows you to make the automation process dedicated. See [Dedicated Automation Process](#).

The screenshot shows the 'Automation Processes' management interface. A table lists several processes, including 'Invoice Plane Automation' which is highlighted. A red-bordered pop-up window titled 'Edit Automation Processes' is open over the 'Invoice Plane Automation' row. The pop-up contains the following fields:

- Name ***: Invoice Plane Automation
- Description**: Extracts unique products
- Module Class**: eu.ibagroup.easyrpa.ap.productsreader.ProductsReaderAp
- Dedicated Nodes**: A dropdown menu showing 'NODE 1'.
- Dedicated**: A toggle switch that is currently turned on.

Below the pop-up, the 'Total Runs' section shows the last run status as 'Completed' with a last run ID of 1035. A status bar at the bottom indicates 0 runs in Submitted, In Progress, Stopped, or Stopping states.

- Total Runs - the quantity of the automation process runs and their statuses. See [Automation Process Run Status Lifecycle](#).

If the automation process was launched once, the "Last run status" is displayed - the status and the index number of the last process run. Clicking the index number of the process will lead to the last process Run page. See [\(v. 2.2\) Automation Process Run](#).

- Repository Id Components - maven artifact identifier consists of the following IDs:
 - Group Id (example: eu.ibagroup);
 - Artifact Id (example: easy-rpa-sample);
 - Version Id (example: 0.1-SNAPSHOT);
 - Classifier - a unique identifier that reflects the type of resource being loaded.

The screenshot displays the 'Automation Processes' management interface. On the left, a sidebar contains navigation icons. The main area features a table with columns for Name, Capabilities, Created By, Creation Date, Changed By, and Last Update. The 'Invoice Plane Automation' process is highlighted. A modal window titled 'Edit Automation Processes' is open, showing the last run ID (1035) and a status dashboard with metrics for Submitted (0), In Progress (0), Stopped (0), and Stopping (0). It also displays counts for Stopped Idle (0), Completed (7), Queued (0), and Failed (0). The 'Repository Id Components' section lists Group Id (* eu.ibagroup.samples.ap), Artifact Id (* easy-rpa-invoiceplane-ap), Version Id (* 2.1-SNAPSHOT), and Classifier. At the bottom of the modal are 'DETAILS' and 'UPDATE' buttons.

⚠ You can find the necessary module class and repository id values for all the available samples in the corresponding section. See **RPA Samples Library**.

For more information about the automation process - click **Details**. Required Permission: AutomationProcess-READ.

Upload Automation Process Package

The EasyRPA allows to upload a package with all the necessary modules for an automation process:

- Automation process .jar file
- Automation process .json definition
- Secret vault .json file
- Automation process input
- Automation process configuration parameters
- Data stores
- Notification templates definitions as .json files
- Notification templates as .txt files

To upload a package, you need to:

- Navigate to the **Automation Processes** module.
- Click the **Upload package** icon.

The screenshot shows the 'Automation Processes' page. At the top right, there is an 'Upload package' button with a red box around it and a 'CREATE NEW' button. Below the buttons is a search bar and 'Refresh' and 'Delete' icons. The main area contains a table with the following columns: Name, Capabilities, Created By, Creation Date, Changed By, and Last Update. The table lists four processes, each with a checkbox, a download icon, a user icon, and a delete icon.

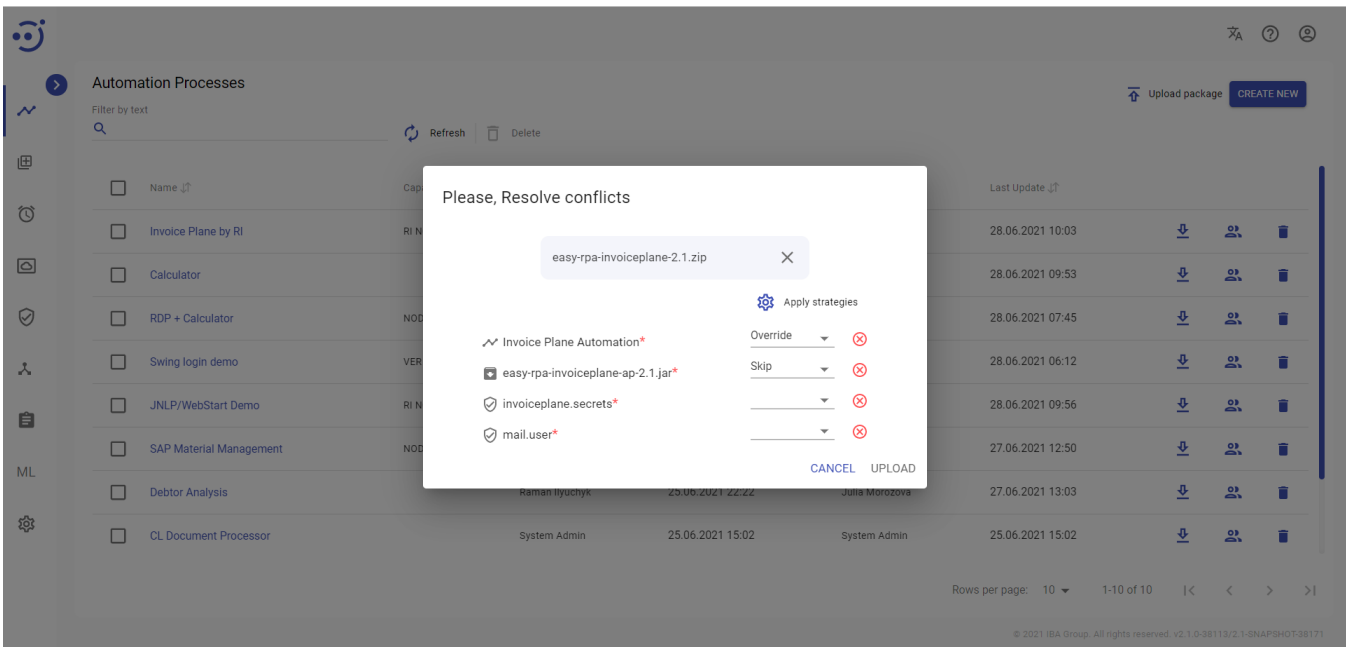
Name	Capabilities	Created By	Creation Date	Changed By	Last Update
nodeuser-0380139a's development AP. 1... Dedicated		NODE 1 dedicated ...	05.05.2021 11:01	NODE 1 dedicated ...	05.05.2021 11:01
Invoice Plane Automation Dedicated		System Admin	04.05.2021 12:15	System Admin	05.05.2021 10:25
CL Document Processor		System Admin	04.05.2021 12:28	System Admin	04.05.2021 12:28
IE Document Processor		System Admin	04.05.2021 12:28	System Admin	04.05.2021 12:28

At the bottom right, there is a pagination control showing 'Rows per page: 10' and '1-4 of 4'.

- Provide a valid .zip file with a package. To apply override to the whole package check **Try to override all**.

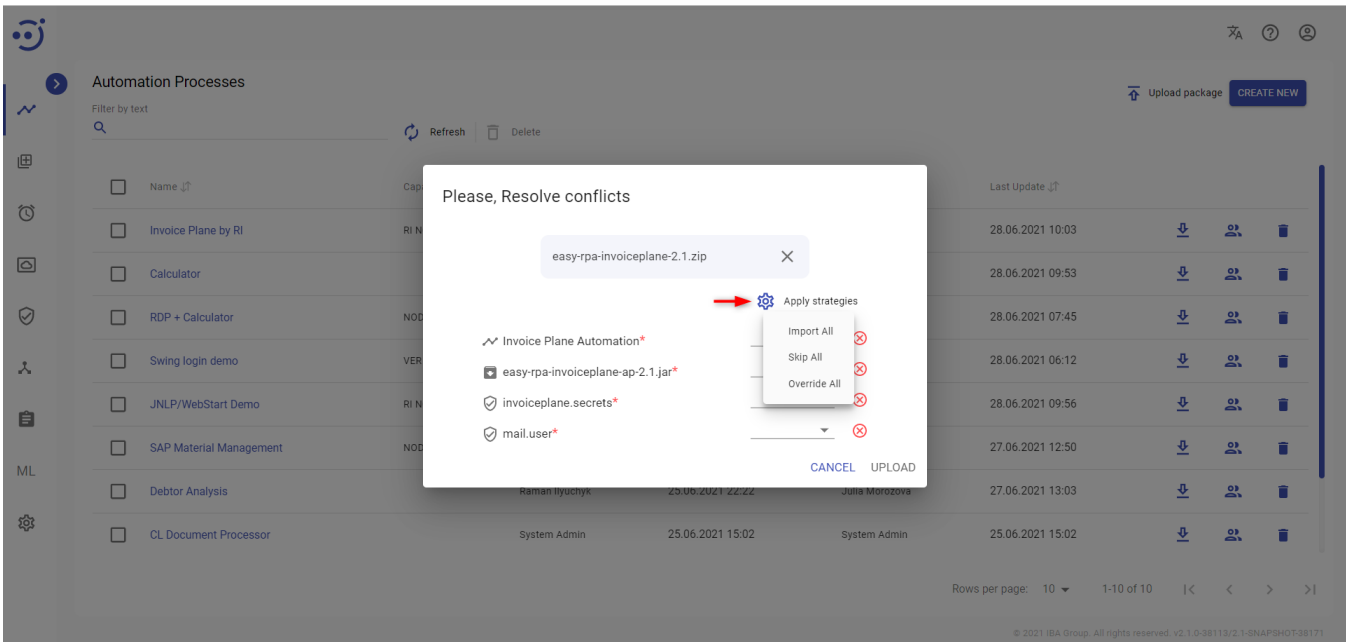
The screenshot shows the 'Automation Processes' page with a modal dialog box open. The dialog box has the title 'Please, Provide packages to upload' and contains a text input field with the value 'easy-rpa-invoiceplane-2.1.zip'. Below the input field is a checkbox labeled 'Try to override all'. At the bottom right of the dialog box are 'CANCEL' and 'UPLOAD' buttons, with the 'UPLOAD' button highlighted with a red box.

- Click **Upload**.
- In case of conflicts: resolve it using options Override or Skip.



- To select the option (Import All, Skip All, Override All) for all items click on **Apply strategies**.

⚠ If the selected option is not present in the item, therefore, it doesn't apply.



- Click **Upload**.

To upload a package, you need to be granted AutomationProcess-CREATE permission. See [Role Permissions](#) .

(v. 2.2) Automation Process Details

- [Details](#)
- [Runs](#)
- [Configuration Parameters](#)
- [Input Data](#)
- [Notifications](#)

The Automation Process Details page contains general automation process details, executed automation process runs, and configuration parameters. You can view/edit automation process details, configuration parameters, and manage automation process runs. To access the Automation Processes Details, you need to be granted AutomationProcess-READ permission. See [\(v. 2.2\) Role Permissions](#).

Details

The Details tab displays general settings, that are necessary for the automation process creation and launch.

To view/edit automation process details, you need to:

- Navigate to the **Automation Processes** module.
- Click on the corresponding Automation Process Name.

<input type="checkbox"/>	Name ↑↓	Capabilities	Created By	Creation Date ↑↓	Changed By	Last Update ↓			
<input type="checkbox"/>	Invoice Plane Automation		System Admin	04.05.2021 12:15	Darya Trotskaya	06.05.2021 16:53	↓	👤	🗑️
<input type="checkbox"/>	CL Document Processor		System Admin	04.05.2021 12:28	System Admin	04.05.2021 12:28	↓	👤	🗑️
<input type="checkbox"/>	IE Document Processor		System Admin	04.05.2021 12:28	System Admin	04.05.2021 12:28	↓	👤	🗑️

- Navigate to **Details** tab
- Change one of the field values.

Automation Processes / CL Document Processor

Automation Process Details ← Back to list

SAVE AS FILE

Details | Runs | Configuration Parameters | Input Data | Notifications

General	Repository Id Components	Capabilities	
Name *	Group Id *	Task	Capabilities
CL Document Processor	eu.ibagroup	eu.ibagroup.easyrpa.ap.cldp.tasks.StoreCIMIResult	-
Description	Artifact Id *	eu.ibagroup.easyrpa.ap.cldp.tasks.StoreCIOcrResult	-
BuildIn Document Processor for Document Classificat...	easy-rpa-cldp-ap	eu.ibagroup.easyrpa.ap.cldp.tasks.GenerateCIModelReportTask	-
Module Class	Version Id *	eu.ibagroup.easyrpa.ap.dp.tasks.SetModelOutputAsHuman	-
eu.ibagroup.easyrpa.ap.cldp.CIDocumentProcessor	2.1-SNAPSHOT	eu.ibagroup.easyrpa.ap.dp.tasks.StoreHumanTaskResult	-
Capabilities	Classifier	eu.ibagroup.easyrpa.ap.cldp.tasks.PrepareCITrainingSetTask	-
AP_RUN X X		eu.ibagroup.easvrpa.ap.cldp.tasks.PrepareCIMITask	-
<input type="checkbox"/> Dedicated			

UPDATE

© 2021 IBA Group. All rights reserved. v2.1.0-34908/2.1-SNAPSHOT-34949

- Click **Update**.

To update the Automation Process Details, you need to be granted AutomationProcess-UPDATE permission. See (v. 2.2) [Role Permissions](#).

Control icons

- **Save as file** - to download the JSON file containing the automation process details, configuration parameters, and input data. Required Permission: AutomationProcess-READ.

Fields Description

General:

- Name - the automation process name.
- Description (optional) - a short description of the automation process functionalities.
- Module Class (optional) - the name of the module class for execution.
- Capabilities (optional) - capability tags required for the automation process execution. It is possible to choose available capabilities in the dropdown.

Repository Id Components:

- Group Id
- Artifact Id
- Version Id
- Classifier - a unique identifier that reflects the type of resource being loaded.

Capabilities:

A list of system capabilities for the automation process tasks is automatically displayed on the right-hand side of the Automation Process Details tab.

Runs

The Runs tab contains information about all runs of a particular automation process and their statuses. You can manage the automation process runs using control buttons. To access the Automation Processes Runs, you need to be granted AutomationProcess-READ permission. See (v. 2.2) [Role Permissions](#).

To launch the automation process run, you need to click the **Start Run** button. Required permission: AutomationProcess-ACTION.

Automation Processes / IE Document Processor

Automation Process Details ← Back to list

START RUN

Details Runs Configuration Parameters Input Data Notifications

Filter by text

Refresh Delete Delete All

Run ID	Created By	Creation Date	Status
1047	System Admin	05.05.2021 16:04	Completed
1048	System Admin	05.05.2021 16:08	Completed
1049	System Admin	05.05.2021 16:23	Completed
1054	System Admin	06.05.2021 09:32	Failed
1055	System Admin	06.05.2021 09:33	Completed
1065	System Admin	06.05.2021 11:11	Stopped Idle

Rows per page: 10 1-10 of 11

© 2021 IBA Group. All rights reserved. v2.1.0-34908/2.1-SNAPSHOT-34949

Columns Description

- Run ID - numeric identifier of the particular process run.
- Created By - the automation process author name.
- Creation Date - the date and time when the process was created.
- Status - the current status of the automation process run.

Control icons

- Stop - to stop the automation process run. Required Permission: AutomationProcess-ACTION.
- Retry - to repair the automation process run. Required Permission: AutomationProcess-ACTION.
- Delete - to delete the automation process run. Required Permission: AutomationProcess-UPDATE.

Filter by text

Filtering allows you to search the automation process by Run ID, author (Created By column) or status.

Sorting

Ascending/descending sorting is allowed for the Creation Date column.

Related pages

Clicking on the Run ID value will lead to the "Run" page of the selected automation process run. See [\(v. 2.2\) Automation Process Run](#) for more information.

Configuration Parameters

The Configuration Parameters tab displays the list of automation process parameters in the form of key-value pairs.

To access the Configuration Parameters, you need to be granted AutomationProcess-READ permission. See [\(v. 2.2\) Role Permissions](#).

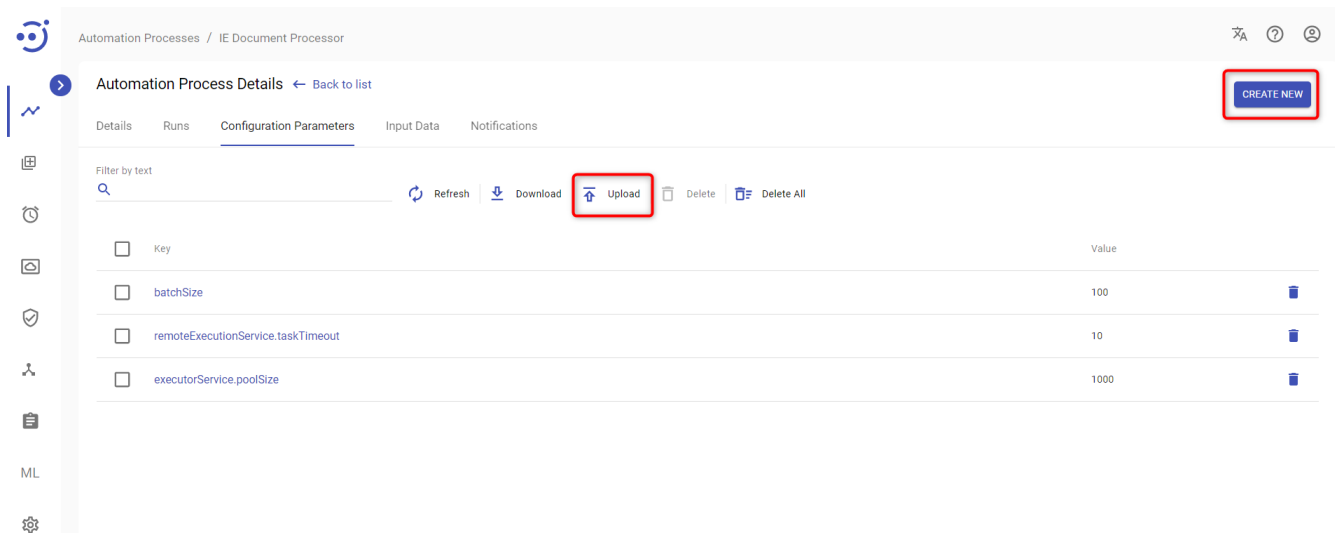
⚠ If the same parameter with a different value is present in the CS Configuration and the Node Configuration Parameters modules, the priority is assigned in the following order: Node Configuration Parameter -> Automation Process Configuration Parameter -> CS Configuration Parameter.

Add Configuration Parameter

There are 2 ways to **Add** a new configuration parameter:

- Click **Create New** and add configuration parameter manually. Required Permission: AutomationProcess-UPDATE

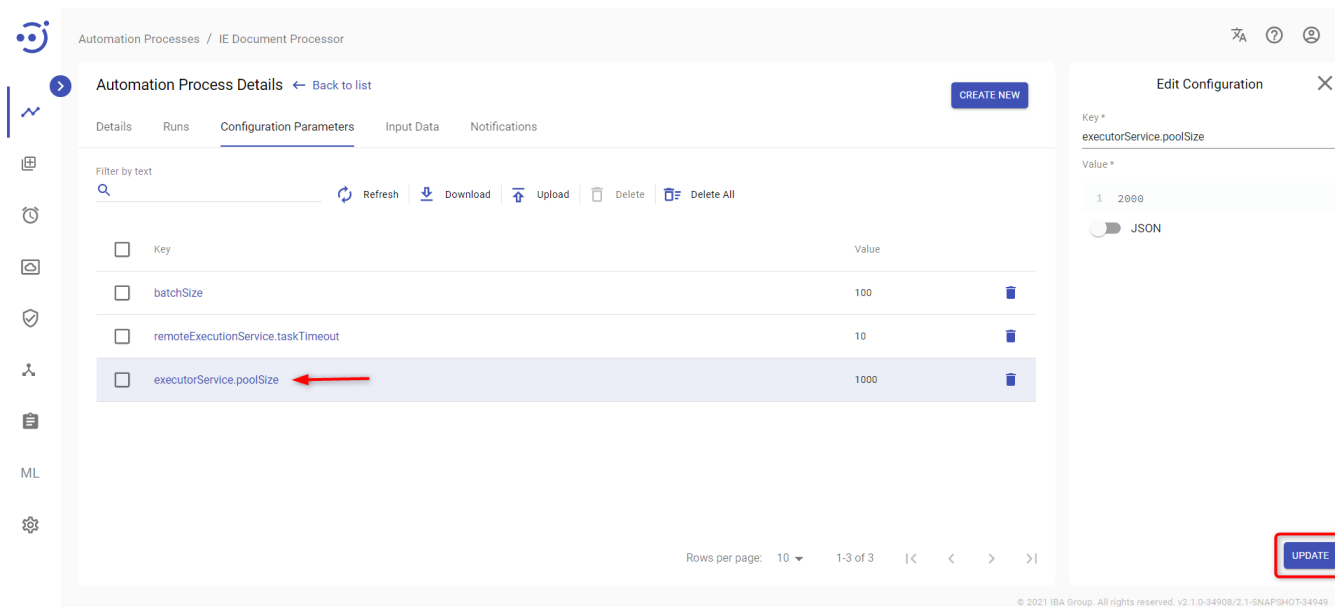
- Click the **Upload** icon and import the CSV file. Required Permission: AutomationProcess-UPDATE.



Update Configuration Parameter

To **Update** an existing configuration parameter, you need to:

- Click on the corresponding configuration parameter.
- Change one of the field values.



- Click **Update**.

To update the Automation Process Configuration Parameters, you need to be granted AutomationProcess-UPDATE permission. See (v. 2.2) [Role Permissions](#).

Control icons

- **Download** - to download existing configuration parameters in CSV file. Required permission: AutomationProcess-READ.
- **Delete** - to delete the configuration parameter. Required Permission: AutomationProcess-UPDATE.
- **Delete all** - to delete all configuration parameters of this automation process. Required Permission: AutomationProcess-UPDATE.

Filter by text

Filtering allows you to search the configuration parameter by Key, Value columns.

Configuration parameters example

key	value
acc.client.url	http://by.demo.1c.eu/accounting/en/
court.judgments.court	Экономический суд г. Минска
sap.path	C:/Program Files (x86)/SAP/FrontEnd/SAPgui/saplogon.exe
WINDOWS_APPLICATION_DRIVER_URL	http://localhost:4723

Input Data

The Input Data tab contains the input data configuration in JSON format. To access the Input Data, you need to be granted AutomationProcess-READ permission. See [\(v. 2.2\) Role Permissions](#).

By default the input data looks as follows:

Automation Processes / IE Document Processor

Automation Process Details ← Back to list

Details Runs Configuration Parameters **Input Data** Notifications

```
1 {
2   "variables": {},
3   "_id": "68fd24bb-2f9a-4442-9f04-a25ebf30db24"
4 }
```

<> Add Input Data

The data input file contains information needed to complete the task. You can either upload ready JSON file, or write it right in editor. You are allowed to change "variables" content of the input JSON, all other fields will be ignored

UPDATE

© 2021 IBA Group. All rights reserved. v2.1.0-34908/2.1-SNAPSHOT-34949

Update Input Data

There 2 ways to **Update** the default input data:

- **Upload** File in JSON format.

Automation Processes / IE Document Processor

Automation Process Details ← Back to list

Details Runs Configuration Parameters **Input Data** Notifications

```
1 {
2   "variables": {},
3   "_id": "68fd24bb-2f9a-4442-9f04-a25ebf30db24"
4 }
```

<> Add Input Data

The data input file contains information needed to complete the task. You can either upload ready JSON file, or write it right in editor. You are allowed to change "variables" content of the input JSON, all other fields will be ignored

UPLOAD

Please, provide JSON file

- Write JSON manually in the editor. Click Format Data icon to bring it to JSON format. Click Update.

To update the Input Data, you need to be granted AutomationProcess-UPDATE permission. See [\(v. 2.2\) Role Permissions](#).

Control icons

- Format Data - to bring it to JSON format.
- Copy - to copy input data to the clipboard.

Notifications

The Notifications tab allows users to receive messages about a particular AP Run. To access the Notifications, you need to be granted AutomationProcess-READ permission. See [\(v. 2.2\) Role Permissions](#).

Columns Description

- Trigger - the action for which the message is sent to the particular channel.
- Template - example of a message is sent to a channel.
- Channel - mailing list of contacts.

Control icons

- **Refresh** - to refresh the page.
- **Delete** - to delete Notifications.

Required Permission: AutomationProcess-UPDATE.

The screenshot shows the 'Automation Process Details' page for 'CL Document Processor'. The 'Notifications' tab is active. A search bar with a magnifying glass icon is present, with a 'Filter by text' label. To the right of the search bar are two buttons: 'Refresh' (with a circular arrow icon) and 'Delete' (with a trash can icon), both highlighted with a red box. Below the search bar is a table with columns: 'Trigger' (with an upward arrow icon), 'Template' (with a double-headed arrow icon), and 'Channel' (with an upward arrow icon). The first row of the table has a checkbox, the text 'Completed', 'Document Type ...', and 'Notification Chann...'. A red box highlights a trash can icon at the end of this row. At the bottom right of the table area, there is a pagination control showing 'Rows per page: 10', '1-1 of 1', and navigation arrows. The footer contains the copyright notice: '© 2021 IBA Group. All rights reserved. v2.1.0-37524/2.1-SNAPSHOT-37634'.

Filter by text

Filtering allows you to search the automation process by **Trigger, Template and Channel**.

Sorting

Ascending/descending sorting is allowed for the **Trigger, Template and Channel** columns.

Create a New Notification

To create a New Notification:

1. Click "**Create New**" button.
2. In the New Notification pop-up panel enter **Trigger, Chanel, Template**.
3. Click **CREATE**.

Automation Processes / CL Document Processor

Automation Process Details ← Back to list CREATE NEW

Details Runs Configuration Parameters Input Data **Notifications**

Filter by text

Refresh Delete

<input type="checkbox"/>	Trigger ↓	Template ↑↓	Channel ↑↓
<input type="checkbox"/>	Completed	VL AP templ	Notification Chann... 🗑️

Rows per page: 10 1-1 of 1

CREATE

© 2021 IBA Group. All rights reserved. v2.1.0-37524/2.1-SNAPSHOT-37634

To create the Automation Process Notifications, you need to be granted AutomationProcess-UPDATE permission. See [\(v. 2.2\) Role Permissions](#).

Update Notifications

To **Update** an existing notification parameters, you need to:

- Click on the corresponding notification.
- Change one of the field values.

Automation Processes / CL Document Processor

Automation Process Details ← Back to list CREATE NEW

Details Runs Configuration Parameters Input Data **Notifications**

Filter by text

Refresh Delete

<input type="checkbox"/>	Trigger ↓	Template ↑↓	Channel ↑↓
<input type="checkbox"/>	Completed	VL AP templ	Notification Chann... 🗑️

Rows per page: 10 1-1 of 1

UPDATE

© 2021 IBA Group. All rights reserved. v2.1.0-37524/2.1-SNAPSHOT-37634

- Click **Update**.

To update the Automation Process Notifications, you need to be granted AutomationProcess-UPDATE permission, Channel-READ and Template-READ. See [\(v. 2.2\) Role Permissions](#).

Delete Notifications

There 2 ways to **Delete** Notifications:

- **Press control icon Delete.**

Automation Processes / CL Document Processor

Automation Process Details ← Back to list CREATE NEW

Details Runs Configuration Parameters Input Data **Notifications**

Filter by text

Refresh Delete

<input type="checkbox"/>	Trigger ↑	Template ↓↑	Channel ↓↑	
<input type="checkbox"/>	Completed	VL AP templ	Notification Chann...	
<input type="checkbox"/>	Submitted	Document Type ...	Notification Chann...	

Rows per page: 10 1-2 of 2 |< < > >|

© 2021 IBA Group. All rights reserved. v2.1.0-37524/2.1-SNAPSHOT-37634

- **Choose the particular (or all) Notification and press icon Delete.**

Automation Processes / CL Document Processor

Automation Process Details ← Back to list CREATE NEW

Details Runs Configuration Parameters Input Data **Notifications**

Filter by text

Refresh Delete

<input type="checkbox"/>	Trigger ↑	Template ↓↑	Channel ↓↑	
<input type="checkbox"/>	Completed	VL AP templ	Notification Chann...	
<input checked="" style="border: 2px solid red;" type="checkbox"/>	Submitted	Document Type ...	Notification Chann...	

Rows per page: 10 1-2 of 2 |< < > >|

© 2021 IBA Group. All rights reserved. v2.1.0-37524/2.1-SNAPSHOT-37634

You need to be granted AutomationProcess-UPDATE permission. See [\(v. 2.2\) Role Permissions](#).

(v. 2.2) Automation Process Run

- [History](#)
- [Event Log](#)
- [Automation Process Run Status Lifecycle](#)

The Runs page contains detailed information about a particular automation process run, its history, and event log which help users to monitor particular process execution. To view the list of the automation process runs, you need to be granted AutomationProcess-READ permissions. See [\(v. 2.2\) Role Permissions](#).

To navigate to the Run page, you need to:

- Navigate to the **Automation Processes** module.
- Click on the corresponding Automation Process Name.
- Click on the corresponding Automation Process Run ID. Required Permissions: AutomationProcess-READ.

The screenshot shows the 'Automation Process Details' page for 'IE Document Processor'. The 'Runs' tab is active, displaying a table of automation process runs. A red arrow points to the first row, which has a Run ID of 1049 and a status of 'Completed'. The table includes columns for Run ID, Created By, Creation Date, and Status. Below the table, there are pagination controls showing '1-10 of 11' rows.

Run ID	Created By	Creation Date	Status
1049	System Admin	05.05.2021 16:23	Completed
1054	System Admin	06.05.2021 09:32	Failed
1055	System Admin	06.05.2021 09:33	Completed
1065	System Admin	06.05.2021 11:11	Stopped Idle

Each run has information about a user who started the Automation Process and start Date/Time and actions to Stop, Retry and Delete the automation process run (enabled for the corresponding [Automation Process Run Status Lifecycle](#)).

The screenshot shows the 'Run' page for 'IE Document Processor' with Run ID 1028. The 'History' tab is active, displaying a flow diagram of the automation process. The diagram starts with a root node 'IE Document ...' which branches into five parallel paths. Each path consists of a 'Prepare OCR T...' node followed by an 'OCR' node. A red box highlights the 'Stop', 'Retry', and 'Delete' action buttons at the top right, along with the text 'NODE 4 dedicated user on 05.05.2021 10:00'. The diagram is displayed at 86% zoom.

History

The History tab displays the automation process steps in either Diagram, Code or Table representation. To access the Automation Processes Run History, you need to be granted AutomationProcess-READ permission. See (v. 2.2) Role Permissions.

The screenshot shows the 'History' tab for an automation process named 'IE Document Processor'. The interface includes a navigation bar with 'Run' and 'Back to list' options, and control icons for 'Stop', 'Retry', and 'Delete'. The main area displays a flowchart with a root node 'IE Document ...' and several child nodes labeled 'Prepare OCR T...' and 'OCR'. One 'Prepare OCR T...' node is highlighted with a 'Completed' status, showing a green dot and a detailed tooltip with the task name, start/end times, and a unique ID. The right sidebar provides 'Module details' for the 'IE Document Processor', including Run UUID, Module class, Module name, Module description, and Status (COMPLETED). The bottom of the interface shows a copyright notice: '© 2021 IBA Group. All rights reserved. v2.1.0-34908/Z.1-SNAPSHOT-34949'.

Control icons

- **Stop** - to stop the automation process run. Required Permission: AutomationProcess-ACTION.
- **Retry** - to repair the automation process run. Required Permission: AutomationProcess-ACTION.
- **Delete** - to delete the automation process run. Required Permission: AutomationProcess-UPDATE.
- **Refresh** - to pull the last process run state from the server and see all the completed steps.
- **Diagram/Code/Table toggle** - to switch between Diagram, Code or Table representation.

Diagram

The first step describes the general information about the process run:

- Run uuid (example: 683b293d-bf6b-44ab-9430-7de269bda187)
- Module class (example: eu.ibagroup.easyrpa.demo.debtors.DebtorsAnalysisFullDemoAp)
- Module name (example: Debtor analysis full demo)
- Module description
- Status (example: OK/ERROR)

The subsequent steps describe every task executed by the bot with Input/Output for each step in JSON format. It is possible to copy data to clipboard or maximize for easy viewing.

The screenshot shows the 'Automation Processes / IE Document Processor / 1028' interface. The main view displays a task flow diagram with a root node 'IE Document ...' and several child nodes, including 'Prepare OCR T...' and 'OCR'. A 'Completed' task node is highlighted, showing details like 'Prepare OCR Task', '05 May 2021 09:47 - 05 May 2021 09:48', and '43fb701c-53fe-4ced-86ab-3e8e1e61f882'. A detailed task output window is open on the right, showing 'Task Input JSON' and 'Task Output JSON' with a large JSON object containing various fields like 'ocr.task.data', 'image', 'hocr', 'json', 'text', 'configuration', 'bucket', 'data', 'tesseractOptions', 'arrayList', 'psm', 'oem', 'dpi', 'imageMagicOptions', and 'resample', '450', 'density', '350'.

Event Log

The Event Log tab displays the logs of the particular automation process run. To access the Automation Processes Run Event Log, you need to be granted AutomationProcess-READ permission. See (v. 2.2) [Role Permissions](#).

The screenshot shows the 'Automation Processes / IE Document Processor / 1028' interface with the 'Event log' tab selected. The interface includes search and filter options: 'Search by text' with a search icon, 'Refresh' and 'Autorefresh' checkboxes, 'Filter by severity' set to 'ALL', and 'View columns' set to 'timestamp, severity, node name'. The event log table displays a list of log entries with columns for timestamp, severity, and node name. A 'Stop', 'Retry', and 'Delete' button is visible at the top right of the event log area.

Control icons

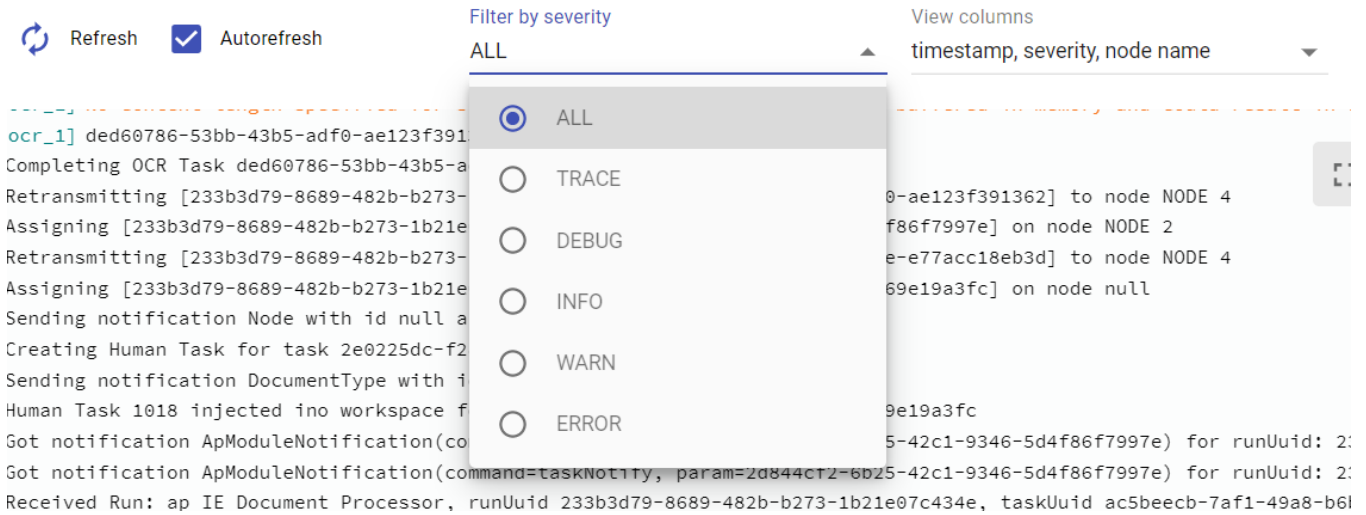
- **Stop** - to stop the automation process run. Required Permission: AutomationProcess-ACTION.
- **Retry** - to repair the automation process run. Required Permission: AutomationProcess-ACTION.
- **Delete** - to delete the automation process run. Required Permission: AutomationProcess-UPDATE.
- **Refresh** - to pull the latest logs from the server.
- **Autorefresh checkbox** - to turn on/off an automatic refresh of logs.

Search by text

You can search for a particular log by its text. The logs found are highlighted in yellow.

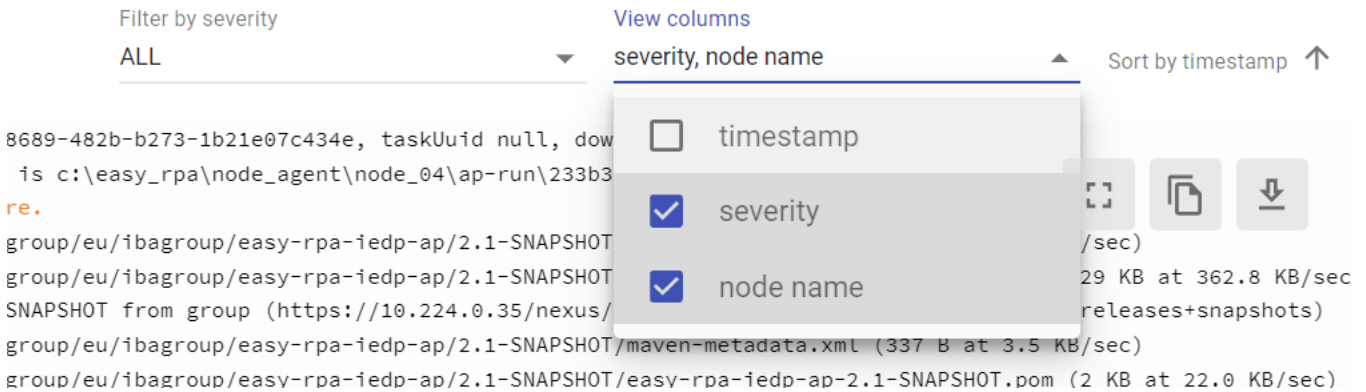
Filter by severity

Filtering allows you to choose the level of severity of the displayed logs from the dropdown menu. The available options are as follows:



View columns

You can add or remove the columns timestamp/severity/node name from the event log view.



Sort by timestamp

Ascending/descending logs sorting by the timestamp is allowed.

In the upper-right corner of the logs window there are buttons for opening logs in the full browser window, copying logs to the clipboard and downloading a .txt file with logs:

Automation Processes / IE Document Processor / 1028

Run ← Back to list Stop Retry Delete
 NODE 4 dedicated user on 05.05.2021 10:00

History **Event log**

Search by text Refresh Autorefresh Filter by severity ALL View columns severity, node name, timestamp Sort by timestamp ↑

[2021-05-05 09:47:12.181]	[INFO]	[NODE 4]	Received Run: ap IE Document Processor, runId 233bd79-8689-482b-b273-1b21e07c434e, taskId null, download script on node NODE 4
[2021-05-05 09:47:12.197]	[INFO]	[NODE 4]	AP 68fd24bb-2f9a-4442-9f04-a25ebf30db24 working directory is c:\easy_rpa\node_agent\node_04\ap-run\233bd79-8689-482b-b273-1b21e07c434e
[2021-05-05 09:47:12.228]	[WARN]	[NODE 4]	RunConfiguration was changed by SELENIUM_STANDALONE feature.
[2021-05-05 09:47:12.509]	[INFO]	[NODE 4]	Downloaded: https://10.224.0.35/nexus/repository/easyrpa-group/eu/1bagroup/easy-rpa-1edp-ap/2.1-SNAPSHOT/maven-metadata.xml (337 B at 3.0 KB/s)
[2021-05-05 09:47:12.790]	[INFO]	[NODE 4]	Downloaded artifact eu.1bagroup:easy-rpa-1edp-ap:jar:2.1-SNAPSHOT from group (https://10.224.0.35/nexus/repository/easyrpa-group/, default)
[2021-05-05 09:47:13.041]	[INFO]	[NODE 4]	Downloaded: https://10.224.0.35/nexus/repository/easyrpa-group/eu/1bagroup/easy-rpa-1edp-ap/2.1-SNAPSHOT/maven-metadata.xml (337 B at 3.0 KB/s)
[2021-05-05 09:47:13.259]	[INFO]	[NODE 4]	Downloaded: https://10.224.0.35/nexus/repository/easyrpa-group/eu/1bagroup/easy-rpa-1edp-ap/2.1-SNAPSHOT/easy-rpa-1edp-ap-2.1-SNAPSHOT.jar (337 B at 3.0 KB/s)
[2021-05-05 09:47:13.290]	[INFO]	[NODE 4]	Downloaded artifact eu.1bagroup:easy-rpa-1edp-ap:pom:2.1-SNAPSHOT from group (https://10.224.0.35/nexus/repository/easyrpa-group/, default)
[2021-05-05 09:47:13.540]	[INFO]	[NODE 4]	Downloaded: https://10.224.0.35/nexus/repository/easyrpa-group/eu/1bagroup/easy-rpa-1edp-ap/2.1-SNAPSHOT/easy-rpa-1edp-ap-2.1-SNAPSHOT.jar (337 B at 3.0 KB/s)
[2021-05-05 09:47:13.821]	[INFO]	[NODE 4]	Downloaded: https://10.224.0.35/nexus/repository/easyrpa-group/eu/1bagroup/easy-rpa-engine-parent/2.1-SNAPSHOT/maven-metadata.xml (343 B at 3.0 KB/s)
[2021-05-05 09:47:14.087]	[INFO]	[NODE 4]	Downloaded: https://10.224.0.35/nexus/repository/easyrpa-group/eu/1bagroup/easy-rpa-engine-parent/2.1-SNAPSHOT/maven-metadata.xml (335 B at 3.0 KB/s)
[2021-05-05 09:47:14.369]	[INFO]	[NODE 4]	Downloaded: https://10.224.0.35/nexus/repository/easyrpa-group/eu/1bagroup/easy-rpa-engine/2.1-SNAPSHOT/maven-metadata.xml (336 B at 4.2 KB/s)
[2021-05-05 09:47:14.634]	[INFO]	[NODE 4]	Downloaded: https://10.224.0.35/nexus/repository/easyrpa-group/eu/1bagroup/easy-rpa-engine/2.1-SNAPSHOT/maven-metadata.xml (336 B at 4.2 KB/s)
[2021-05-05 09:47:14.900]	[INFO]	[NODE 4]	Downloaded: https://10.224.0.35/nexus/repository/easyrpa-group/eu/1bagroup/easy-rpa-be-communication/2.1-SNAPSHOT/maven-metadata.xml (34 B at 4.2 KB/s)
[2021-05-05 09:47:15.165]	[INFO]	[NODE 4]	Downloaded: https://10.224.0.35/nexus/repository/easyrpa-group/eu/1bagroup/easy-rpa-engine-ap1/2.1-SNAPSHOT/maven-metadata.xml (340 B at 4.2 KB/s)
[2021-05-05 09:47:17.183]	[INFO]	[NODE 4]	Downloaded: https://10.224.0.35/nexus/repository/easyrpa-group/eu/1bagroup/easy-rpa-1edp-ap/2.1-SNAPSHOT/maven-metadata.xml (337 B at 4.2 KB/s)
[2021-05-05 09:47:17.380]	[INFO]	[NODE 4]	Downloaded: https://10.224.0.35/nexus/repository/easyrpa-group/eu/1bagroup/easy-rpa-1edp-ap/2.1-SNAPSHOT/maven-metadata.xml (337 B at 4.2 KB/s)

© 2021 IBA Group. All rights reserved. v2.1.0-34908/Z.1-SNAPSHOT-34949

"Not Full Logs" indicator appears at the bottom right corner when the log becomes too long for one page.

To download full logs use Download button:

View columns timestamp, severity Sort by timestamp ↑

class candidate for launch.
 on class candidate for launch.
 lass candidate for launch.

Download Full Logs

To copy the displayed logs only use Copy button:

View columns timestamp, severity Sort by timestamp ↑

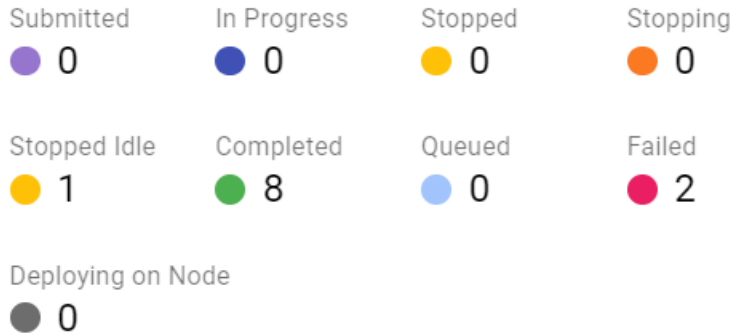
n class candidate for launch.
 ion class candidate for launch.
 lass candidate for launch.

Copy

The following section describes the life cycle of the automation process and the corresponding statuses that it may have.

Automation Process Run Status Lifecycle

- **Submitted** - transient status responsible for downloading artifacts and their capabilities that are necessary for starting the AP.
- **Queued** - describes the state when the automation process gets queued on the Control Server side and is waiting for a free node (one in status Idle) on which it can be executed. The node is searched among not dedicated nodes on Control Server based on the capabilities described in [\(v. 2.2\) Automation Process Details](#) (Details tab). The "Queued" status is received by the process immediately after clicking the "Start run" button if the required node is busy, and is active until the necessary node is found.
- **Deploying on Node** - the automation process receives the status when it finds the node required for its execution and is assigning to that node.
- **In Progress** - describes the state when the automation process is executed on the node.
- **Stopping** - transient status responsible for stopping the automation process run. The AP receives the status immediately after clicking the "Stop" icon.
- **Stopped** - the automation process receives the status when its execution is stopped. It is possible to retry stopped automation processes.
- **Stopped Idle** - the automation process receives the status when nothing happened with the task for some time. For example, Human tasks are in the Workspace without changes.
- **Failed** - describes the automation process that is failed with an error. The details of the error can be found in the "Event Log" of the automation process run.
- **Completed** - indicates the successful completion of the automation process run.



Control icons

The following actions can be applied to the automation processes with corresponding statuses:

	Stop	Retry	Delete
Submitted			
Queued			
Deploying on node			
In Progress			
Stopping			
Stopped			
Stopped Idle			

Failed			
Completed			

(v. 2.2) Dedicated Automation Processes

The EasyRPA Control Server allows running Dedicated Automation Processes, that can be launched by the users on their own machines.

- [Dedicated Automation Processes Overview](#)
- [Create a Dedicated Automation Process](#)
- [Start a Dedicated Automation Process Run](#)

Dedicated Automation Processes Overview

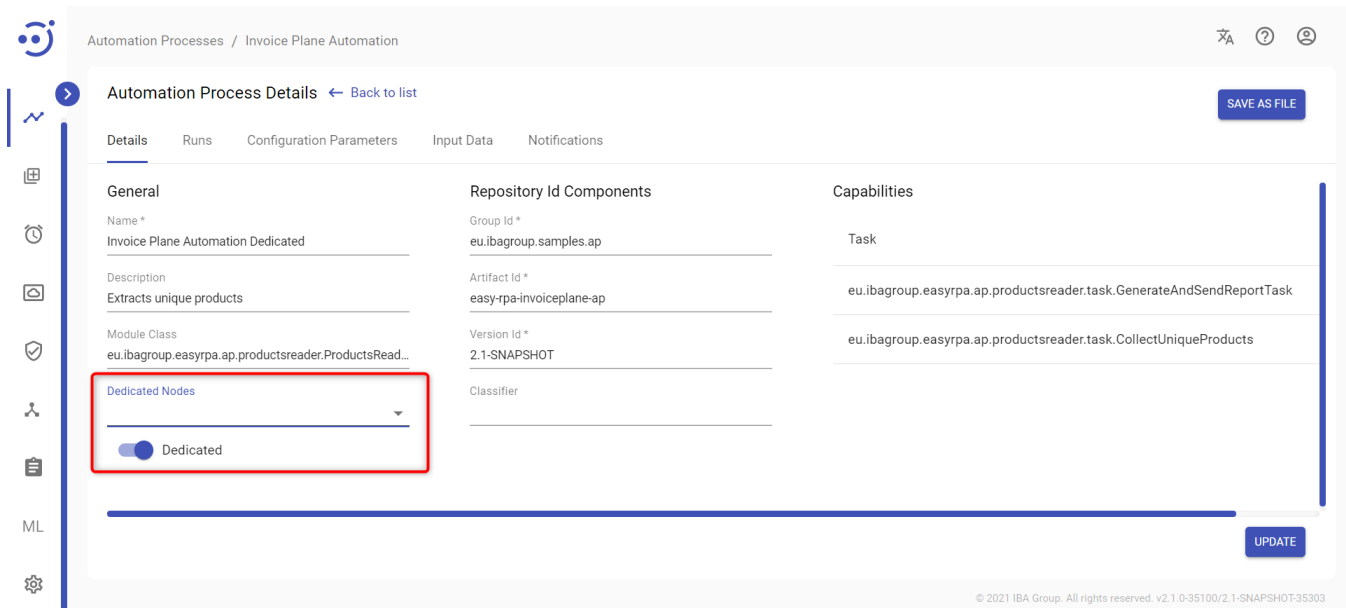
The automation processes intended for a specifically dedicated node (or groups of nodes) are configured by the administrator and marked as Dedicated on the Control Server side. The node agent is installed on the working machine, where the user operates. The dedicated user can navigate to the user-friendly dashboard with all dedicated automation processes and launch them with one click (it is not possible to start a dedicated AP run from the Control Server).

Create a Dedicated Automation Process

To create a Dedicated Automation Process you need to:

- Navigate to the Automation Process Details section.
- Enable the **Dedicated** mode.
- Choose the appropriate **Dedicated Nodes**.

If the automation process is dedicated, then the Capabilities do not work and the assignment of automation processes occurs on a specifically dedicated node (there may be several of them).



Start a Dedicated Automation Process Run

To launch the Dedicated Automation Process assigned by the administrator, the user needs to:

- Launch a web browser on the working machine.
- Connect via a special URL (which ends with /dap) to the Control Server (e.g. <https://10.224.0.35/dap>).
- Get into the view, which shows dedicated automation processes assigned to the machine.
- Click start run for the appropriate automation process.



Dedicated AP

↻ Refresh



Invoice Plane Automation



● Ready for start
Extracts unique products

✔ The process is successfully started!

(v. 2.2) Capabilities: Automation Process-to-Node Communication

The decision on which Node the Automation Process will be launched is made based on the Capabilities. While launching, the AP checks whether there are available nodes with a suitable set of capabilities for the automation process execution. If the necessary node is found, the AP starts to run on that node. Capabilities are presented as a system of linking tags.

The screenshot shows the 'Automation Process Details' page for 'Invoice Plane Automation'. The 'Capabilities' section is highlighted with a red box, showing a tag for 'SAP' and a 'Dedicated' toggle switch. The page includes sections for General, Repository Id Components, and Capabilities. The 'General' section contains fields for Name, Description, and Module Class. The 'Repository Id Components' section contains fields for Group Id, Artifact Id, Version Id, and Classifier. The 'Capabilities' section contains a list of tasks and a 'Dedicated' toggle switch.

The EasyRPA Control Server allows executing the automation processes on the nodes. Node - is any machine where the node agent, the EasyRPA Control Server client, is installed. The node agent must be configured according to the configuration from the Control Server. See [Node Management Configure a new Node](#). The Automation Processes are linked to the Nodes with the capability labels. Capabilities - are tags assigned to the Nodes and Automation Processes. When the new Node instance is created on the Control Server, the administrator specifies which capabilities the node supports.

⚠ For example, if the node can serve requests for the automation of SAP applications (i.e. is configured by the administrator to serve SAP applications), the tag SAP should be added to the Capabilities of the node. Automation processes that automate SAP must also have the SAP capability tag so that the process can be passed to a node that supports this functionality.

The screenshot shows the 'Node Details' page for 'NODE 4'. The 'Capabilities' section is highlighted with a red box, showing tags for 'SAP', 'AP_RUN', and 'SELENIUM'. The page includes sections for General, Node Agent, and Features. The 'General' section contains fields for Name, Description, and Working Directory. The 'Node Agent' section contains fields for Version, CPU, Total memory, Free memory, and IP addresses. The 'Features' section contains a list of features and their status.

The Automation Process that needs several capabilities for the execution (multiple Capability tags are specified) will look for the node that has all these capabilities. If the necessary node is not found, the automation process will receive the status "Deploying on Node", it means that the system is waiting for the node with all the required capability to execute the automation process. As soon as the AP finds a node with the required capabilities, it receives the status "Queued", which means that the AP is in the queue for processing. When the process starts execution, it receives the status "In Progress". For more information about the automation process workflow, see [Automation Process Run Status Lifecycle](#).

(v. 2.2) Runs Management

The Runs Management module allows users to manage and display active Automation Processes Runs at the moment.

The screenshot shows the 'Runs Management' interface. At the top, there is a search bar and a 'View statuses' dropdown menu set to 'Deploying on Node, Stopped...'. Below the search bar are buttons for 'Refresh', 'Retry', 'Stop', 'Delete', and 'Stop all active'. The main area contains a table with the following data:

Run ID	Created By	Creation Date	Status
CL Document Processor / 1065	Nastassia Burak	03.05.2021 16:20	Stopped Idle
IE Document Processor / 1055	Hanna Zaprutskaya	30.04.2021 10:50	Stopped Idle
HT Sample / 1034	System Admin	28.04.2021 15:38	Stopped Idle

Active runs

By default the module displays all Automation Processes Runs in the following statuses: Deploying on Node, In Progress, Stopping, Stopped Idle, Queued (See [Automation Process Run Status Lifecycle](#)). Runs in Stopped, Submitted, Failed, Completed statuses can be displayed as well.

The screenshot shows the 'Runs Management' interface with the 'View statuses' dropdown menu set to 'Deploying on Node, In Progr...'. The table displays the following data:

Run ID	Created By	Creation Date	Status
CL Document Processor / 1066	Nastassia Burak	03.05.2021 16:35	In Progress
CL Document Processor / 1065	Nastassia Burak	03.05.2021 16:20	Stopped Idle
IE Document Processor / 1055	Hanna Zaprutskaya	30.04.2021 10:50	Stopped Idle
HT Sample / 1034	System Admin	28.04.2021 15:38	Stopped Idle
JNLP/WebStart Demo RI Local / 1026	System Admin	28.04.2021 12:59	Stopping

Columns Description

- Run ID - The Automation Process Name and a numeric identifier of the particular process run. By clicking on the Run Id, you can see the history of the particular process run.
- Created By - the automation process run author name.

- Creation Date - the date and time when the process was created.
- Status - the current status of the automation process run.

Control icons

The screenshot shows the 'Runs Management' interface. At the top, there is a search bar labeled 'Filter by text' and a 'View statuses' dropdown menu set to 'Deploying on Node, In Progr...'. A toolbar contains five icons: Refresh, Retry, Stop, Delete, and Stop all active. Below this is a table with columns: Run ID, Created By, Creation Date, and Status. The table lists four runs: 'CL Document Processor / 1063' (In Progress), 'IE Document Processor / 1055' (Stopped Idle), 'HT Sample / 1034' (Stopped Idle), and 'JNLP/WebStart Demo RI Local / 1026' (Stopping). Each row has a set of control icons: a link icon, a stop icon, a refresh icon, and a delete icon. The 'In Progress' row's icons are highlighted with a red box.

Run ID	Created By	Creation Date	Status
CL Document Processor / 1063	Nastassia Burak	03.05.2021 16:06	In Progress
IE Document Processor / 1055	Hanna Zaprutskaya	30.04.2021 10:50	Stopped Idle
HT Sample / 1034	System Admin	28.04.2021 15:38	Stopped Idle
JNLP/WebStart Demo RI Local / 1026	System Admin	28.04.2021 12:59	Stopping

- **Refresh** - to pull the last processes runs from the server.
- **Retry** - to repair the automation process run. Available for runs with statuses Failed, Stopped. Required Permission: AutomationProcess-ACTION. See [\(v. 2.2\) Role Permissions](#).
- **Stop** - to stop the automation process run. Available for runs with statuses Deploying on Node, In Progress, Stopping, Stopped Idle, Queued. Required Permission: AutomationProcess-ACTION. See [\(v. 2.2\) Role Permissions](#).
- **Stop all active** - to stop all automation process runs in Deploying on Node, In Progress, Stopping, Stopped Idle and Queued statuses. This action will stop launches in the specified statuses, even if other statuses are displayed in the table. Required Permission: AutomationProcess-ACTION. See [\(v. 2.2\) Role Permissions](#).
- **Delete** - to delete the selected automation process run. Required Permission: AutomationProcess-DELETE. See [\(v. 2.2\) Role Permissions](#).
- **Open run log** - to see the logs of the particular automation process run. See [Automation Process Run](#) for more information. Required Permission: AutomationProcess-READ. See [\(v. 2.2\) Role Permissions](#).

Filter by text

Filtering allows you to search the Automation Processes run by Run ID, Created By, Status columns.

View statuses

Filtering allows you to choose statuses in the View statuses dropdown.

Runs Management

Filter by text

View statuses
Deploying on Node, In Progr...

Refresh | Retry | Stop | Delete | Stop all active

Run ID	By	Creation Date	Status
CL Document Processor / 1064	sia Burak	03.05.2021 16:14	In Progress
IE Document Processor / 1055	Zaprutskaya	30.04.2021 10:50	Stopped Idle
HT Sample / 1034	Admin	28.04.2021 15:38	Stopped Idle
JNLP/WebStart Demo RI Local /	Admin	28.04.2021 12:59	Stopping

Rows per page: 10 | 1-4 of 4

© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

Sorting

Ascending/descending sorting is allowed for the Creation Date and Status columns.

Tasks

After clicking on the "" icon - table with all tasks for the Run is opened.
 The table contains all the tasks and corresponding Nodes, on which the Runs are performed.

Runs Management

Filter by text:

View statuses: Deploying on Node, In Progr... Refresh Retry Stop Delete Stop all active

Run ID	Created By	Creation Date	Status
CL Document Processor / 1064	Nastassia Burak	03.05.2021 16:14	In Progress
IE Document Processor / 1055	Hanna Zaprutskaya	30.04.2021 10:50	Stopped Idle
HT Sample / 1034	System Admin	28.04.2021 15:38	Stopped Idle
JNLP/WebStart Demo RI Local / 1026	System Admin	28.04.2021 12:59	Stopping

Rows per page: 10 | 1-4 of 4

© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

All tasks in the Run are displayed in the table.

Runs Management

Filter by text:

View statuses: Deploying on Node, In Progr... Refresh Retry Stop Delete Stop all active

Run ID	Created By	Creation Date	Status
CL Document Processor / 1064	Nastassia Burak	03.05.2021 16:14	In Progress
IE Document Processor / 1055	Hanna Zaprutskaya	30.04.2021 10:50	Stopped Idle

Task Name	Task Description	Node Name	Start Date	End Date	Status
Human Task	Built-in Human Task.	Control Server	30.04.2021 10:52	03.05.2021 16:18	In Progress
Human Task	Built-in Human Task.	Control Server	30.04.2021 10:52	03.05.2021 16:18	In Progress
Human Task	Built-in Human Task.	Control Server	30.04.2021 10:52	03.05.2021 16:18	In Progress
Prepare Human Task		NODE 3	30.04.2021 10:52	30.04.2021 10:52	Completed
Prepare Human Task		NODE 4	30.04.2021 10:52	30.04.2021 10:52	Completed

Rows per page: 10 | 1-4 of 4

© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

Columns Description:

- Task Name - the name of the task.
- Task Description - a short description of the task functionalities.
- Node Name - the node name, after clicking on the Name - you redirect on the [Node Logs](#). If a Node is not needed for task execution, "Control Server" is displayed.
- Start Date - the date and time when the task was created.
- End Date - the date and time when the task has lasted.
- Status - current status of the task.

When the Run has no tasks - the 'No Tasks' message appears.

The screenshot shows the 'Runs Management' interface. At the top, there is a search bar and a status filter set to 'Failed, Deploying on Node, I...'. Below the search bar are buttons for 'Refresh', 'Retry', 'Stop', 'Delete', and 'Stop all active'. The main area contains a table with the following columns: Run ID, Created By, Creation Date, and Status. The table lists several failed runs, each with a 'Failed' status and a red dot icon. A red box highlights a 'No Tasks' message in the table area. At the bottom right, there is a footer with the text '© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329'.

Run ID	Created By	Creation Date	Status
JNLP/WebStart Demo RI Local / 1027	System Admin	28.04.2021 13:08	Failed
JNLP/WebStart Demo / 1019	NODE 1 dedicated user	28.04.2021 10:29	Failed
No Tasks			
JNLP/WebStart Demo / 1018	NODE 1 dedicated user	28.04.2021 10:27	Failed
JNLP/WebStart Demo RI Local / 1017	RI NODE dedicated user	28.04.2021 10:14	Failed

When you click on the icon "" - the task table is hidden.

(v. 2.2) Schedules

- [\(v. 2.2\) Schedule an Automation Process](#)
- [\(v. 2.2\) Schedule Statuses Life Cycle](#)

(v. 2.2) Schedule an Automation Process

- [Create a New Schedule](#)
- [View/Edit a Schedule via a right-side panel](#)
- [Schedule Details](#)
- [View/Edit a Schedule via Schedule Details](#)
- [Schedule Runs](#)
- [Notifications](#)
- [Create a New Notification](#)
- [Update Notifications](#)
- [Delete Notifications](#)

Besides running your automation process manually, you can set up a schedule to run the automation process periodically at fixed times, dates, or intervals.

Create a New Schedule

To create a schedule:

1. Go to the **Schedules** module and click **Create New**.

The screenshot displays the 'Schedules' module interface. At the top right, there is a 'CREATE NEW' button highlighted with a red box. Below it, there is a search bar and buttons for 'Refresh', 'Enable', 'Disable', and 'Delete'. The main area contains a table with the following data:

<input type="checkbox"/>	Name ↓↑	Process Name	Created By ↓↑	Creation Date ↓↑	Status			
<input type="checkbox"/>	CL Schedule	CL Document Processor	System Admin	06.05.2021 15:34	Completed	<input type="checkbox"/>		
<input type="checkbox"/>	IE Schedule	IE Document Processor	System Admin	06.05.2021 15:41	Scheduled	<input type="checkbox"/>		
<input type="checkbox"/>	Invoice Schedules	Invoice Plane Automation	Darya Trotskaya	06.05.2021 16:55	Disabled	<input checked="" type="checkbox"/>		

At the bottom right, there is a footer with the text: '© 2021 IBA Group. All rights reserved. v2.1.0-34908/2.1-SNAPSHOT-34949'.

2. In the **New Schedule** pop-up panel:

- Enter a unique **name** to distinguish the schedule.
- Enter **description** optionally.
- Select the **automation process** you need to run.
- Set the **schedule period** (type in start and end dates in the mm/dd/YYYY format or select the values from the dropdown menus).
- Set the **schedule frequency** using CRON expression.

⚠ The schedule will be triggered according to the schedule frequency only within the schedule period.

The screenshot shows the 'Schedules' management page. At the top, there is a search bar, a 'Refresh' button, and action buttons for 'Enable', 'Disable', and 'Delete'. A 'CREATE NEW' button is located in the top right. Below this is a table with columns: Name, Process Name, Created By, Creation Date, and Status. The table contains three rows: 'CL Schedule' (Completed), 'IE Schedule' (Scheduled), and 'Invoice Schedules' (Disabled). A 'New Schedule' modal is open on the right, containing fields for Name, Description, Automation Process, Schedule Period (Start and End dates), and Frequency (Cron Expression). A 'CREATE' button is at the bottom right of the modal.

Name	Process Name	Created By	Creation Date	Status
CL Schedule	CL Document Processor	System Admin	06.05.2021 15:34	Completed
IE Schedule	IE Document Processor	System Admin	06.05.2021 15:41	Scheduled
Invoice Schedules	Invoice Plane Automation	Darya Trotskaya	06.05.2021 16:55	Disabled

3. Click **Create** button.

View/Edit a Schedule via a right-side panel

To view the detailed information about an existing schedule, click at any place in the corresponding row of the automation process schedule and the information pop-up will appear. To edit the information about a particular schedule, edit necessary fields at the information pop-up and click the **Update** button.

The screenshot shows the 'Schedules' management page with the 'CL Schedule' row highlighted. The 'Edit Schedule' modal is open on the right, showing the 'General' tab with fields for Name, Description, Automation Process, Schedule Period, and Frequency. 'DETAILS' and 'UPDATE' buttons are at the bottom of the modal.

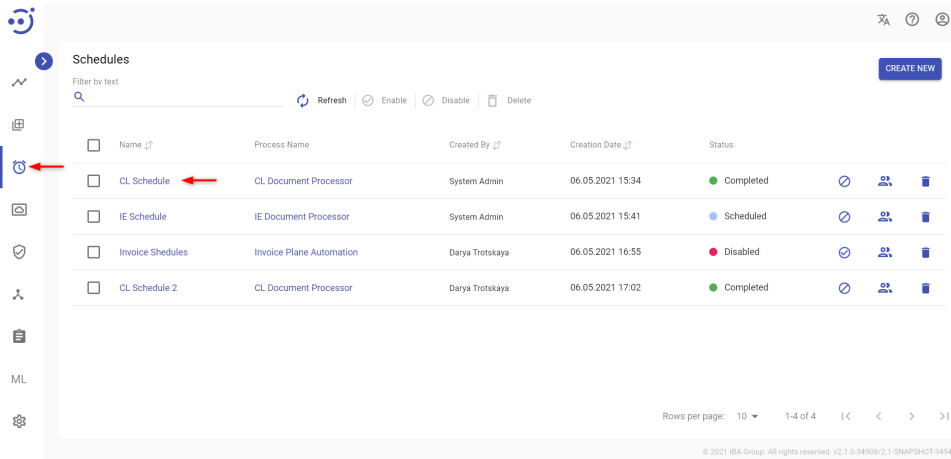
Name	Process Name	Created By	Creation Date	Status
CL Schedule	CL Document Processor	System Admin	06.05.2021 15:34	Completed
IE Schedule	IE Document Processor	System Admin	06.05.2021 15:41	Scheduled
Invoice Schedules	Invoice Plane Automation	Darya Trotskaya	06.05.2021 16:55	Disabled
CL Schedule 2	CL Document Processor	Darya Trotskaya	06.05.2021 17:02	Completed

Schedule Details

The Details tab displays the Run schedule and the Schedule settings.

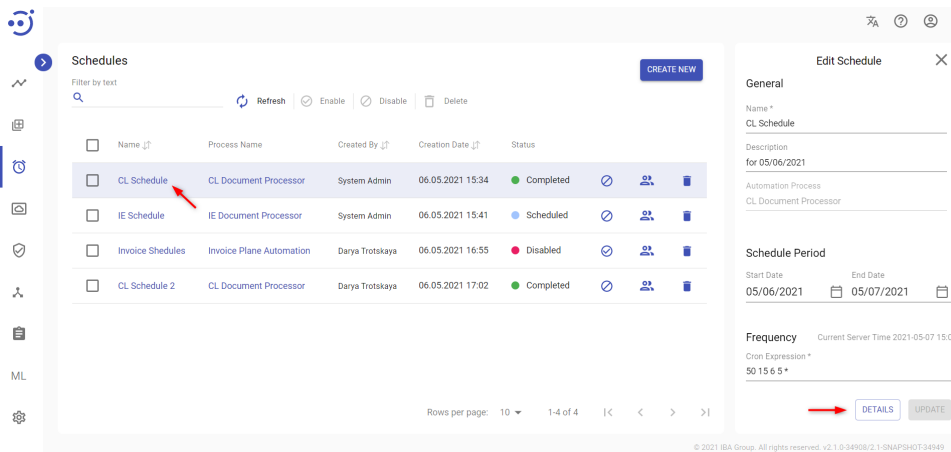
To view/edit Schedule details, you need to:

- Navigate to the Schedules module and Click on the corresponding Schedule Name.



or

- Navigate to the Schedules module, Click on the corresponding row with the Schedule, and at the pop-up panel click Details.



View/Edit a Schedule via Schedule Details

To view/edit Schedule details, you need to:

- Change one of the field values.
- Click **Update**.

Schedules / CL Schedule

Schedule Details ← Back to list

Details Runs Notifications

General

Name *
CL Schedule

Description
for 05/06/2021

Automation Process
CL Document Processor

Schedule Period

Start Date
05/06/2021

End Date
05/07/2021

Frequency Current Server Time 2021-05-07 16:03

Cron Expression *
00 18|6 5 *

[What is CRON?](#)
At 06:00 PM, on day 6 of the month, only in May

UPDATE

© 2021 IBA Group. All rights reserved. v2.1.0-34908/2.1-SNAPSHOT-34949

Fields Description

- Name - the schedule name.
- Description (optional) - a short description of the schedule.
- Automation process - selected automation process for the Schedule, the field is not edited.
- Start and End dates in the mm/dd/YYYY format.
- Schedule frequency using CRON expression.

Schedule Runs

The Runs tab contains information about all runs of a particular Schedule and their statuses. You can manage the automation process runs using Control icons.

When the schedule starts an automation process, it creates a separate instance of this process.

Schedules / CL Schedule

Schedule Details ← Back to list

Details Runs Notifications

Filter by text

Refresh Delete Delete All

<input type="checkbox"/>	Process name / Run ID	Created By	Creation Date ↓	Status
<input type="checkbox"/>	CL Document Processor / 1066	System Scheduler	06.05.2021 15:50	In Progress

Rows per page: 10 1-1 of 1

© 2021 IBA Group. All rights reserved. v2.1.0-34908/2.1-SNAPSHOT-34949

Columns Description

- Process name / Run ID - the automation process name / numeric identifier of the particular process run.
- Created By - the automation process runs initiated by the schedule will have System Scheduler value
- Creation Date - the date and time when the Run was created.
- Status - the current status of the Run.

Control icons

- **Stop** - to stop the automation process run. Required Permission: Schedule-ACTION. See [\(v. 2.2\) Role Permissions](#).
 ⚠️ Note: the process is included when Status of Run is Queued, Deploying on Node, In Progress, Stopping, Stopped Idle. In other statuses the button is disabled.
- **Retry** - to repair the automation process run. Required Permission: Schedule-ACTION. See [\(v. 2.2\) Role Permissions](#).
 The Run is deleted from the Schedule after clicking Retry, the Run is on the Automation Process Runs tab.
 ⚠️ Note: the process is included when Status of Run is Stopped and Failed. In other statuses the button is disabled.
- **Delete** - to delete the selected automation process run. Required Permission: Schedule-DELETE. See [\(v. 2.2\) Role Permissions](#).
- **Delete All** - to delete all the automation process runs that were started on this Schedule. Required Permission: Schedule-DELETE. See [\(v. 2.2\) Role Permissions](#).

Filter by text

Filtering allows you to search the automation process by Process name / Run ID column, Status and its author (Created By column).

Sorting

Ascending/descending sorting is allowed for the Creation Date column.

Related pages

Clicking on the Process name / Run ID value will lead to the "History" page of the selected automation process run. See [Automation Process Run](#) for more information.

See [Automation Process Run Status Lifecycle](#) for more information about the automation process statuses and control icons.

Notifications

The Notifications tab allows users to receive messages about a particular AP Run. To access the Notifications, you need to be granted Schedule-READ permission. See [\(v. 2.2\) Role Permissions](#).

The screenshot displays the 'Schedule Details' page for a schedule named 'r for test'. The 'Notifications' tab is active, showing a table of notification runs. The table has columns for 'Trigger', 'Template', and 'Channel'. A search bar is located at the top left of the table area, with a 'Filter by text' label and a search icon. Below the search bar are 'Refresh' and 'Delete' buttons. The table contains two rows of data. The first row has 'Trigger' and 'Template' columns. The second row has 'In Progress' and 'Document Type' columns. A 'CREATE NEW' button is visible in the top right corner. The footer of the page indicates the copyright information: '© 2021 IBA Group. All rights reserved. v2.1.0-37524/2.1-SNAPSHOT-37634'.

Columns Description

- Trigger - the action for which the message is sent to the particular channel.
- Template - example of a message is sent to a channel.

- Channel - mailing list of contacts.

Control icons

- Refresh - to refresh the page.
- Delete - to delete Notifications.

Required Permission: Schedule-UPDATE.

Schedules / r for test

Schedule Details ← Back to list

CREATE NEW

Details Runs Notifications

Filter by text

Refresh Delete

Trigger ↓	Template ↓↑	Channel ↓↑
<input type="checkbox"/> In Progress	Document Type ...	Notification Chann... <input type="checkbox"/>

Rows per page: 10 1-1 of 1

© 2021 IBA Group. All rights reserved. v2.1.0-37524/2.1-SNAPSHOT-37634

Filter by text

Filtering allows you to search the automation process by **Trigger, Template and Channel**.

Sorting

Ascending/descending sorting is allowed for the **Trigger, Template and Channel** columns.

Create a New Notification

To create a New Notification:

1. Click **"Create New"** button.
2. In the New Notification pop-up panel enter **Trigger, Chanel, Template**.
3. Click **CREATE**.

Schedules / r for test

Schedule Details ← Back to list CREATE NEW

Details Runs Notifications

Filter by text

Refresh Delete

Trigger ↓	Template ↑↓	Channel ↑↓
<input type="checkbox"/> In Progress	Document Type ...	Notification Chann...

Rows per page: 10 1-1 of 1

CREATE

© 2021 IBA Group. All rights reserved. v2.1.0-37524/2.1-SNAPSHOT-37634

To create the Schedule Notifications, you need to be granted Schedule-UPDATE permission. See (v. 2.2) Role Permissions.

Update Notifications

To **Update** an existing notification parameters, you need to:

- Click on the corresponding notification.
- Change one of the field values.

Schedules / r for test

Schedule Details ← Back to list CREATE NEW

Details Runs Notifications

Filter by text

Refresh Delete

Trigger ↓	Template ↑↓	Channel ↑↓
<input type="checkbox"/> In Progress	Document Type ...	Notification Chann...

Rows per page: 10 1-1 of 1

UPDATE

© 2021 IBA Group. All rights reserved. v2.1.0-37524/2.1-SNAPSHOT-37634

- Click **Update**.

To update the Automation Process Notifications, you need to be granted AutomationProcess-UPDATE permission. See (v. 2.2) Role Permissions.

Delete Notifications

There 2 ways to **Delete** Notifications:

- Press control icon **Delete**.


Schedules / r for test

Schedule Details ← Back to list CREATE NEW

Details Runs Notifications

Filter by text

Refresh Delete

<input type="checkbox"/>	Trigger ↓	Template ↓↑	Channel ↓↑
<input type="checkbox"/>	In Progress	Document Type ...	Notification Chann... 

Rows per page: 10 1-1 of 1

© 2021 IBA Group. All rights reserved. v2.1.0-37524/2.1-SNAPSHOT-37634

- Choose the particular (or all) Notification and press icon **Delete**.


Schedules / r for test

Schedule Details ← Back to list CREATE NEW

Details Runs Notifications

Filter by text

Refresh Delete

<input type="checkbox"/>	Trigger ↓	Template ↓↑	Channel ↓↑
<input type="checkbox"/>	In Progress	Document Type ...	Notification Chann... 

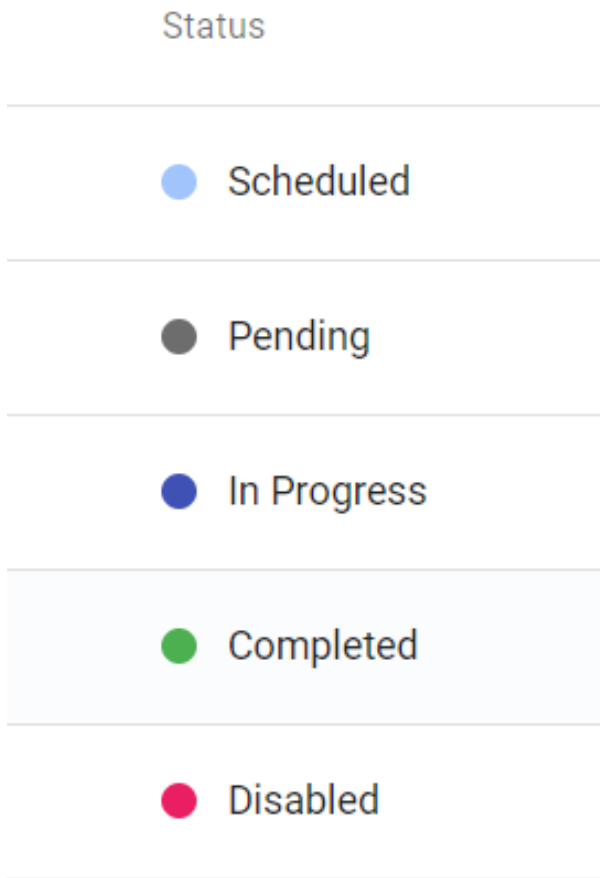
Rows per page: 10 1-1 of 1

© 2021 IBA Group. All rights reserved. v2.1.0-37524/2.1-SNAPSHOT-37634

You need to be granted Schedule-UPDATE permission. See (v. 2.2) [Role Permissions](#).

(v. 2.2) Schedule Statuses Life Cycle

The schedule can receive the following statuses during its life-cycle:



Once the schedule is created, it receives status:

- **Pending** - if the start date has not come yet.
- **Scheduled** - if the start date has already come, but there have not been any automation process runs yet.

As soon as the automation process starts first run, the schedule gets the status:

- **In Progress**

When the end of the schedule time frame comes, the schedule receives the status:

- **Completed**

Once the process is disabled by the user, it receives status:

- **Disabled**

Control icons

You can enable or disable any schedule, refresh page and delete a schedule at any stage using control buttons.

- **Refresh** - to pull the last updates from the server.
- **Enable/disable** - to make enable or disable any schedule.
- **Delete** - to delete the data store (via the recycle bin control icon in the table row or Delete icon above the table).
- **Security Access** - See [\(v. 2.2\) Security Access](#).

Schedules

Filter by text

Refresh Enable Disable Delete

<input type="checkbox"/>	Name ↓↑	Process Name	Created By ↓	Creation Date ↓↑	Status			
<input type="checkbox"/>	Invoice Schedules	Invoice Plane Automation	Darya Trotskaya	06.05.2021 16:55	Disabled	<input checked="" type="checkbox"/>		
<input type="checkbox"/>	CL Schedule 2	CL Document Processor	Darya Trotskaya	06.05.2021 17:02	Completed	<input checked="" type="checkbox"/>		
<input type="checkbox"/>	IE Schedule	IE Document Processor	System Admin	06.05.2021 15:41	Scheduled	<input type="checkbox"/>		
<input type="checkbox"/>	CL Schedule	CL Document Processor	System Admin	06.05.2021 15:34	Completed	<input type="checkbox"/>		

Rows per page: 10 1-4 of 4

© 2021 IBA Group. All rights reserved. v2.1.0-34908/2.1-SNAPSHOT-34949

Filter by text

You can search for the necessary schedules using filtration by Name, Process Name, Created By, Status.

Sorting

Ascending/descending sorting is allowed for Name, Created By, Creation Date columns.

(v. 2.2) Data Stores

- [\(v. 2.2\) Create a New Data Store](#)
- [\(v. 2.2\) Data Store Details](#)

The Data Stores module displays a list of data stores available in the Control Server. EasyRPA Control Server allows users to store and manage automation process data with the help of data stores. It is possible to upload .csv file to a data store or add new records manually.

To manage Data Stores, users must have Data Stores modification permissions. See [Role Permissions](#) .

System Data Stores

The data store can also be created during the automation process run execution. In that case, the Created By column will contain the name and description of the Node that executed the corresponding automation process.

<input type="checkbox"/>	Name ↑	Description ↑	Count of Records ↓	Creation Date ↑	Updated By	Last Update ↑			
<input type="checkbox"/>	debtor		26	21.05.2021 15:36	NODE 2 AP user	21.05.2021 15:36	↓	👤	🗑️
<input type="checkbox"/>	DS With ManyColumns	Data Store With Many Columns	4	24.05.2021 15:14	Darya Trotskaya	24.05.2021 15:16	↓	👤	🗑️
<input type="checkbox"/>	DS With Long Data	Data Store With long data	1	24.05.2021 15:14	Darya Trotskaya	24.05.2021 15:16	↓	👤	🗑️

Columns Description

- Name - the data stores name.
- Description - a short description of the data stores.
- Count of Records - the number of records in the data stores.
- Creation Date - the date and time of the data stores creation.
- Updated By - the name of the user or Node, who change the data stores.
- Last Update - the last date and time when the data stores was changed.

Filter by text

Filtering allows you to search the data store by the columns: Name, Description, Updated By.

Sorting

Ascending/descending sorting is allowed for the columns: Name, Description, Count of Records, Creation Date, Last Update.

Control icons

- **Refresh** - to pull the last updates from the server.
- **Delete** - to delete the data store (via the recycle bin control icon in the table row or Delete icon above the table).
- **Download** - to download the data store in CSV or XLSX file.
- **Security Access** - See [\(v. 2.2\) Security Access](#).

Data Stores

Filter by text

Refresh Delete

<input type="checkbox"/>	Name ↑↓	Description ↑↓	Count of Records ↓	Creation Date ↑↓	Updated By	Last Update ↑↓			
<input type="checkbox"/>	debtors		26	21.05.2021 15:36	NODE 2 AP user	21.05.2021 15:36	Download	Share	Delete
<input type="checkbox"/>	DS With ManyColumns	Data Store With Many Columns	4	24.05.2021 15:14	Darya Trotskaya	24.05.2021 15:16	Download	Share	Delete
<input type="checkbox"/>	DS With Long Data	Data Store With long data	1	24.05.2021 15:14	Darya Trotskaya	24.05.2021 15:16	Download	Share	Delete

Rows per page: 10 1-3 of 3 |< < > >|

© 2021 IBA Group. All rights reserved. v2.1.0-36221/2.1-SNAPSHOT-36232

Download the data store

To select the file format to download, click on the **Download** button next to the desired datastore.

Data Stores

Filter by text

Refresh Delete

<input type="checkbox"/>	Name ↑↓	Description ↑↓	Count of Records ↓	Creation Date ↑↓	Updated By	Last Update ↑↓			
<input type="checkbox"/>	debtors		26	21.05.2021 15:36	NODE 2 AP user	21.05.2021 15:36	Download	Share	Delete
<input type="checkbox"/>	DS With ManyColumns	Data Store With Many Columns	4	24.05.2021 15:14	Darya Trotskaya	24.05.2021 15:16	Download	Share	Delete
<input type="checkbox"/>	DS With Long Data	Data Store With long data	1	24.05.2021 15:14	Darya Trotskaya	24.05.2021 15:16	Download	Share	Delete

Rows per page: 10 1-3 of 3 |< < > >|

© 2021 IBA Group. All rights reserved. v2.1.0-36221/2.1-SNAPSHOT-36232

After clicking the button a list of available formats for downloading will be displayed.



Data Stores

CREATE NEW

Filter by text

Refresh Delete

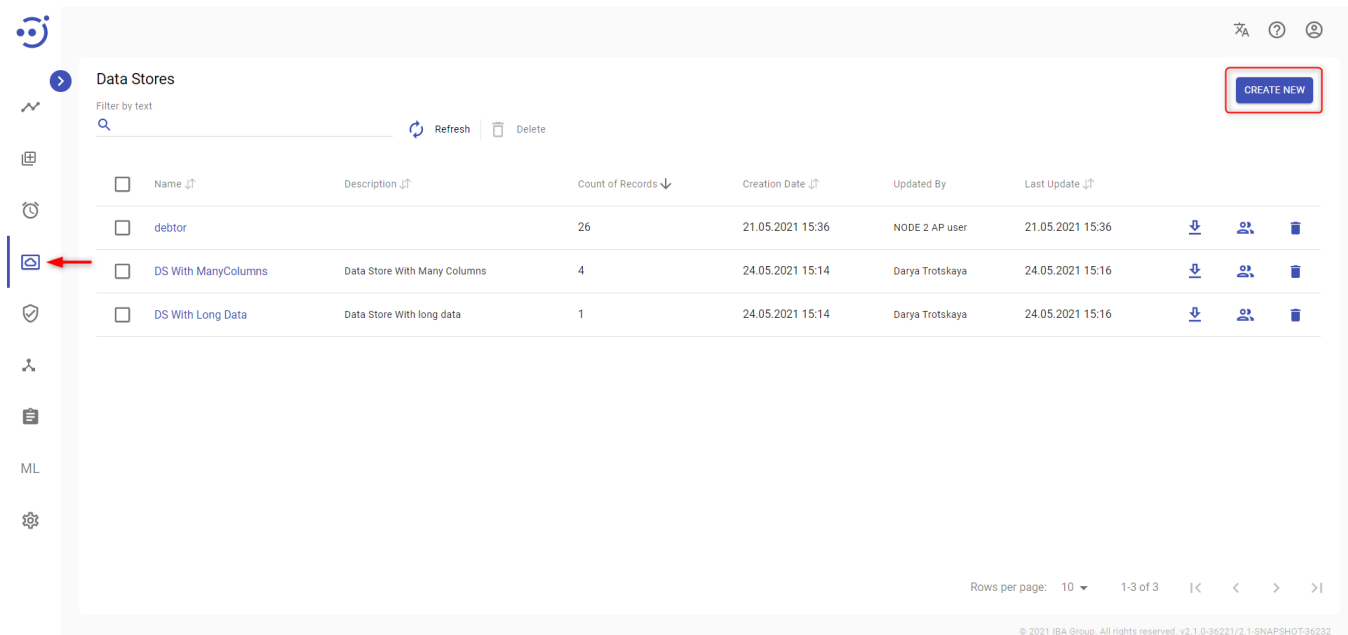
<input type="checkbox"/>	Name ↑↓	Description ↑↓	Count of Records ↓	Creation Date ↑↓	Updated By	Last Update ↑↓	
<input type="checkbox"/>	debtor		26	21.05.2021 15:36	NODE 2 AP user	21.05.2021 15:36	CSV XLSX
<input type="checkbox"/>	DS With ManyColumns	Data Store With Many Columns	4	24.05.2021 15:14	Darya Trotskaya	24.05.2021 15:16	
<input type="checkbox"/>	DS With Long Data	Data Store With long data	1	24.05.2021 15:14	Darya Trotskaya	24.05.2021 15:16	

Rows per page: 10 1-3 of 3

(v. 2.2) Create a New Data Store

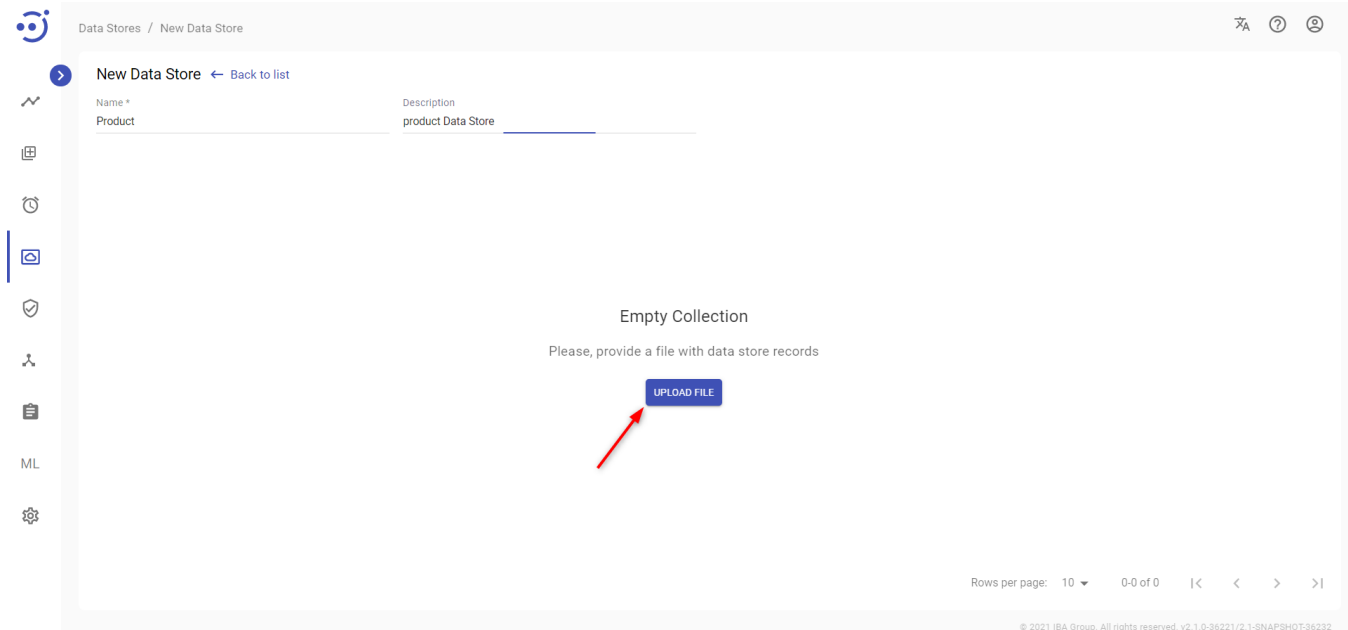
To create a New Data Store:

1. Go to the Data Stores module and click **CREATE NEW**:

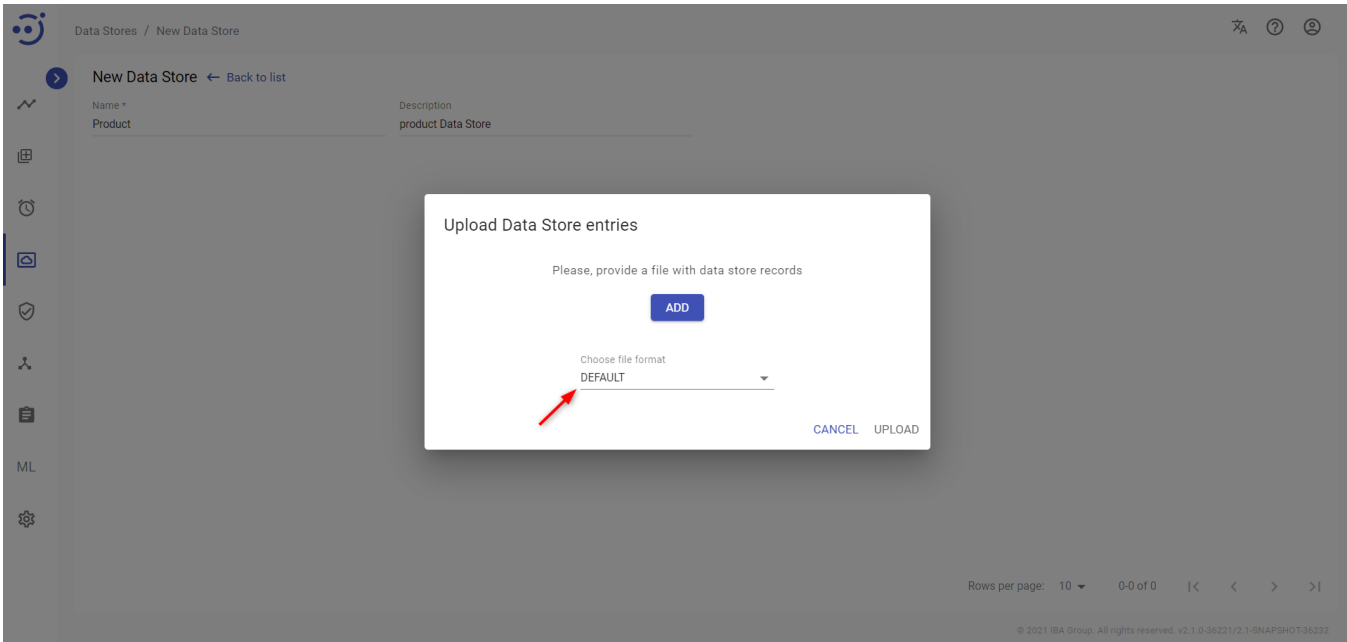


2. Enter a unique **Name** and **Description** to distinguish the Data Store.

3. Click **UPLOAD FILE** (Upload file by another format, the first row should contain column headers):

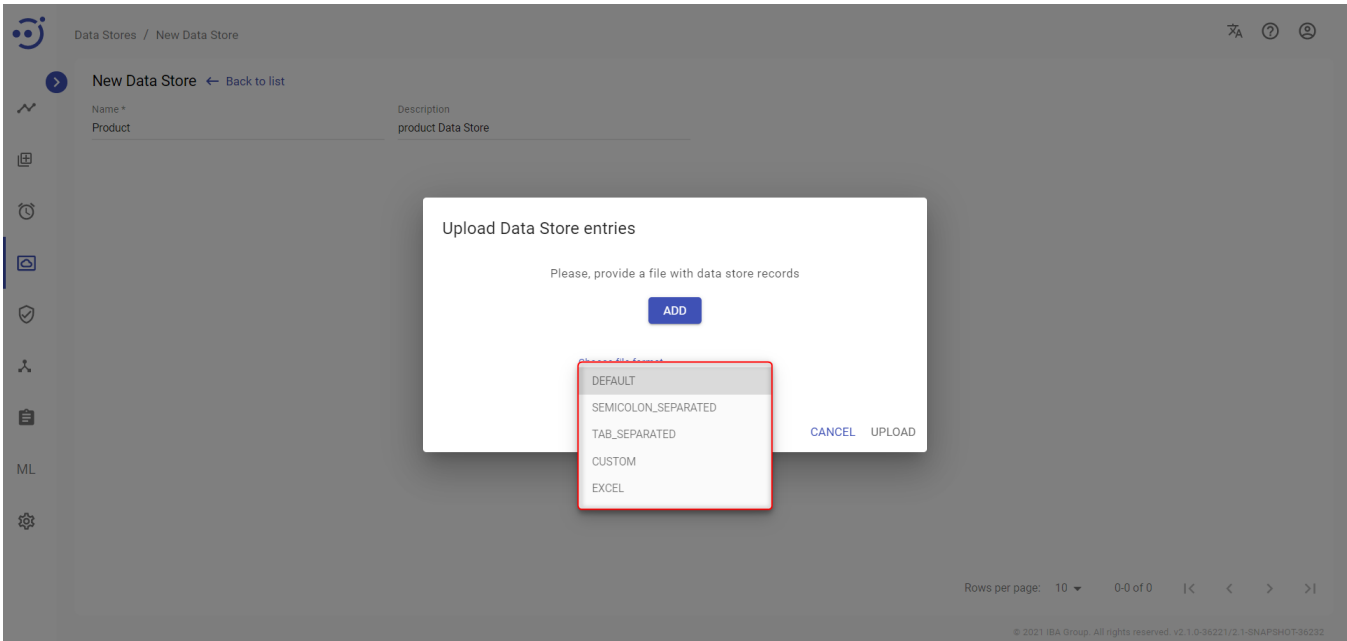


4. Choose file format:

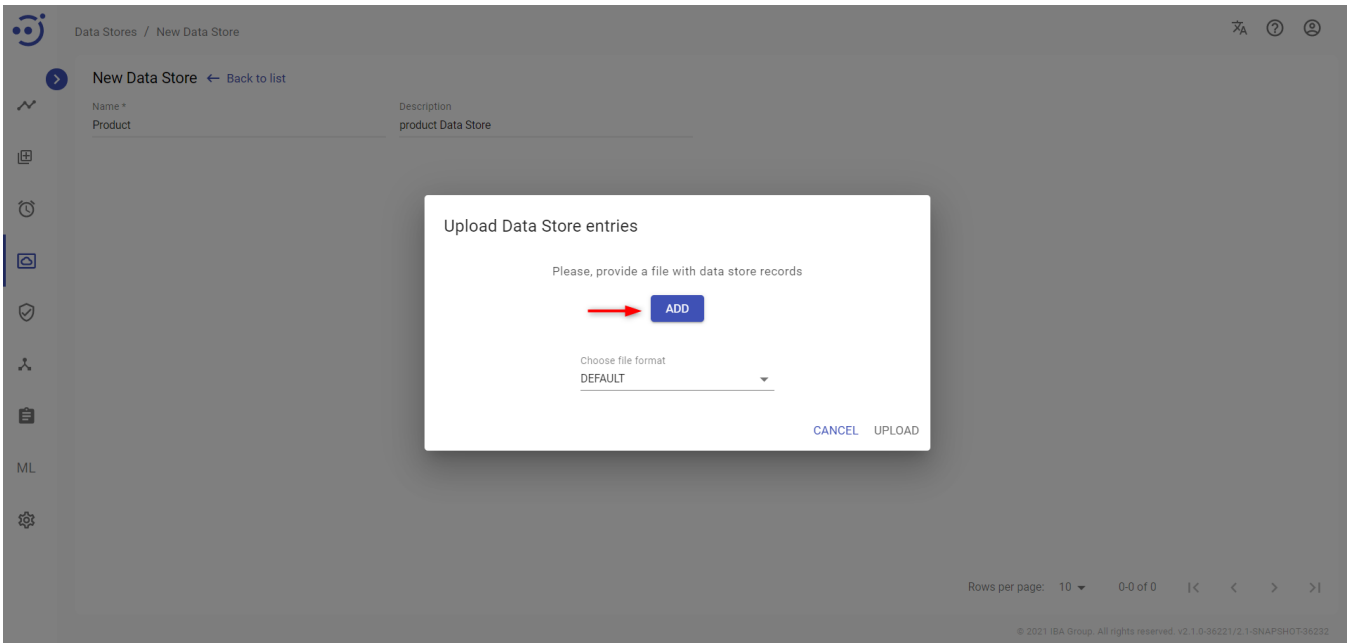


File format settings:

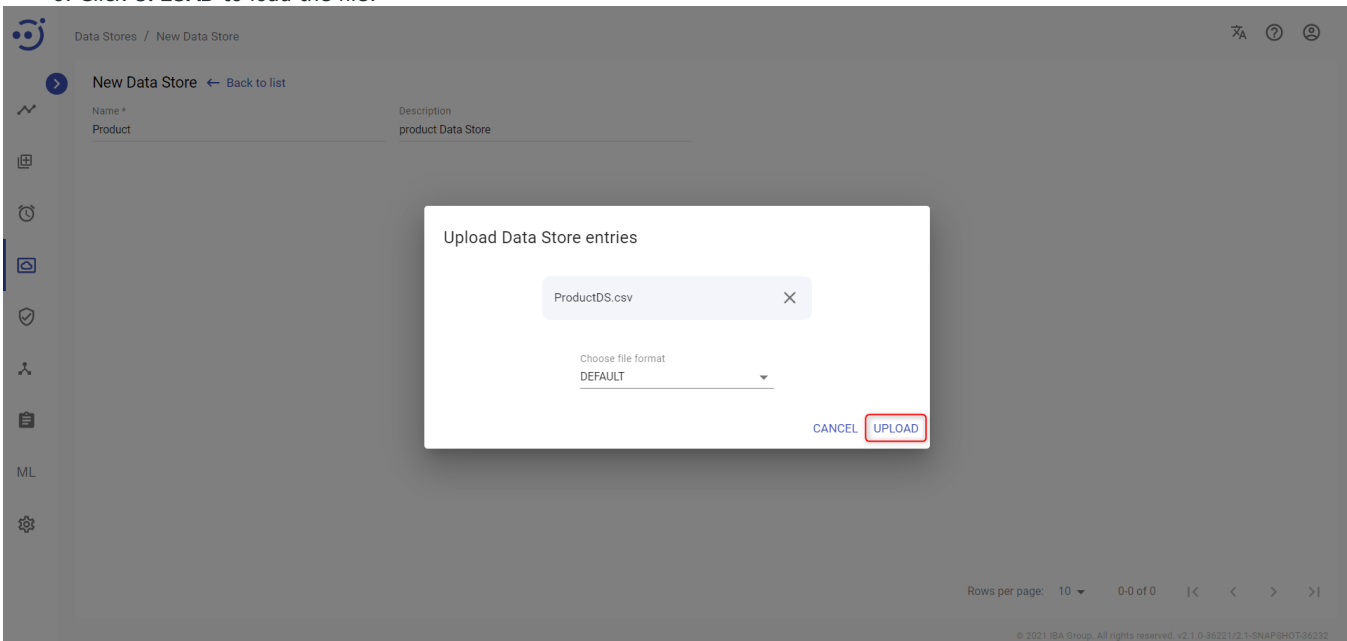
- DEFAULT - CSV file as a delimiter comma (,)
- SEMICOLON_SEPARATED - CSV file as a delimiter semicolon (;)
- TAB_SEPARATED - CSV file as a delimiter tab (\t)
- CUSTOM - CSV file as a delimiter comma (,) other options - for advanced user.
- EXCEL - Excel file in *.xlsx format. ⚠ For correct import excel file use text format.



5. Click **ADD** to select file:



6. Click **UPLOAD** to load the file:



7. Click **SAVE**:



New Data Store ← Back to list

CANCEL

SAVE

Name*
Product

Description
product Data Store

🔗 Data Store Preview

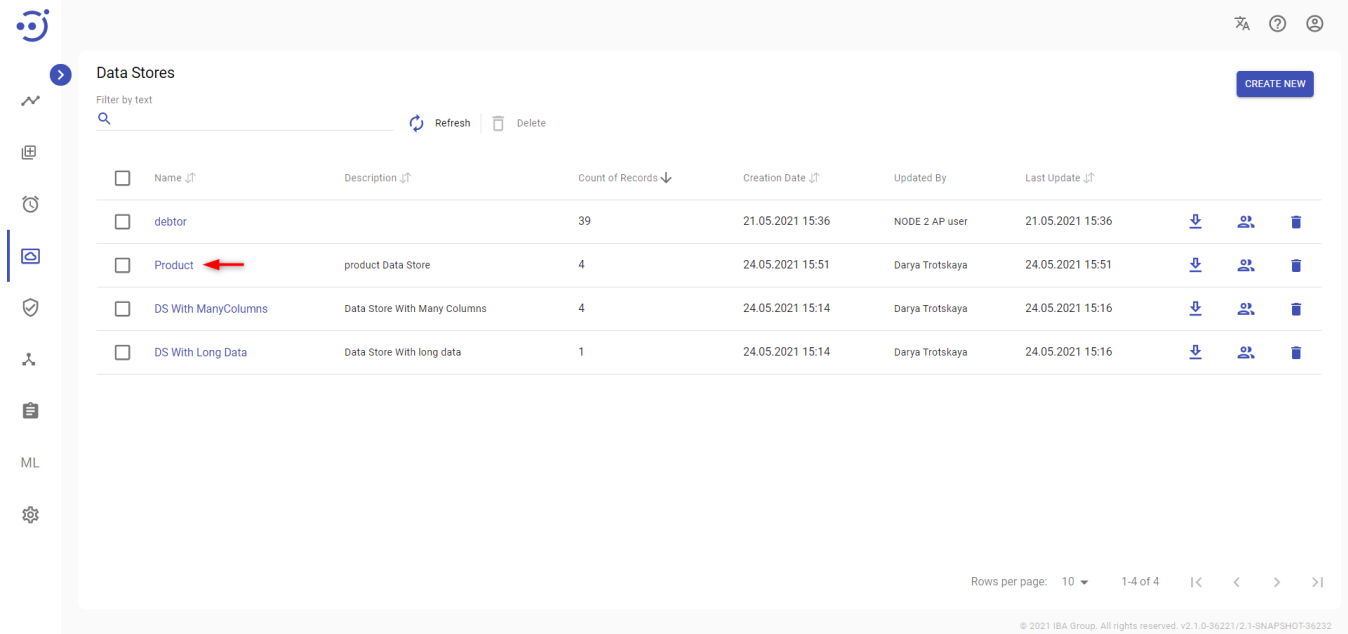
Product Name	Product Description	Price	Count
BMW	Car	\$150,000.00	100
HP	Laptop	\$11.00	2500
Lenovo	Laptop	\$23.00	450
Iphone	Mobile phone	\$95.00	675

Rows per page: 10 1-4 of 4 |< < > >|

(v. 2.2) Data Store Details

- [Options to Data Store](#)
- [Add New Records to Data Store](#)
- [Add New Records manually](#)
- [Upload a file to Data Store](#)
- [View/Edit an existing Record in Data Store](#)

After opening the existing Data Store by clicking its name - the Data Store Details page is opened.



The page is used for the following actions:

- **Add** New Records to the Data Store. See [Add New Records to Data Store](#).
- **Edit** Records for the Data Store.
- **Delete** Records from the Data Store.

Control icons

- **Refresh** - to refresh the page.
- **Delete** - to delete the selected records in the Data Store (via the recycle bin control icon in the table row or Delete icon above the table).

Data Stores / Product

Data Store Details ← Back to list

Options CREATE NEW

Filter by text

Refresh Delete

System Id	Product Name	Product Description	Price	Count	
1	BMW	Car	\$150,000.00	100	Options
2	HP	Laptop	\$11.00	2500	Delete
3	Lenovo	Laptop	\$23.00	450	Delete
4	Iphone	Mobile phone	\$95.00	675	Delete

Rows per page: 10 1-4 of 4

© 2021 IBA Group. All rights reserved. v2.1.0-36221/2.1-SNAPSHOT-36232

Filter by text

Filtering allows you to search the record by all columns in the table except the System Id column.

Sorting

Ascending/descending sorting is allowed for all columns.

Options to Data Store

For additional actions with the datastore, click on the **Options** in the upper-right corner.

Data Stores / Product

Data Store Details ← Back to list

Options CREATE NEW

Filter by text

Refresh Delete

System Id	Product Name	Product Description	Price	Count	
1	BMW	Car	\$150,000.00	100	Delete
2	HP	Laptop	\$11.00	2500	Delete
3	Lenovo	Laptop	\$23.00	450	Delete
4	Iphone	Mobile phone	\$95.00	675	Delete

Rows per page: 10 1-4 of 4

© 2021 IBA Group. All rights reserved. v2.1.0-36221/2.1-SNAPSHOT-36232

After clicking on the button a list of actions, that can be applied to this datastore, will be displayed.

Data Stores / Product

Data Store Details ← Back to list

Filter by text

Refresh Delete

System Id	Product Name	Product Description	Price	
1	BMW	Car	\$150,000.00	100
2	HP	Laptop	\$11.00	2500
3	Lenovo	Laptop	\$23.00	450
4	Iphone	Mobile phone	\$95.00	675

Options CREATE NEW

- Export Data Store CSV
- Export Data Store EXCEL
- Clear Data Store
- Import Data Store Records

Rows per page: 10 1-4 of 4

© 2021 IBA Group. All rights reserved. v2.1.0-36221/2.1-SNAPSHOT-36232

- **Export Data Store CSV** - to download existing records from the Data Store in CSV file.
- **Export Data Store EXCEL** - to download existing records from the Data Store in EXCEL file.
- **Clear Data Store** - to delete all records in the Data Store.
- **Import Data Store Records** - to upload a file with additional records to the Data Store.

Add New Records to Data Store

There are 2 possible ways to add New Records to the already existing Data Store:

- Add New Records manually - to add records manually one by one. See [Add New Records manually](#).
- Upload a CSV file - to upload with multiple records. See [Upload a file to Data Store](#).

In both cases, firstly you should open the existing Data Store by clicking its name:

Data Stores

Filter by text

Refresh Delete

CREATE NEW

Name	Description	Count of Records	Creation Date	Updated By	Last Update	
debtor		39	21.05.2021 15:36	NODE 2 AP user	21.05.2021 15:36	Download Users Delete
Product	product Data Store	4	24.05.2021 15:51	Darya Trotskaya	24.05.2021 15:51	Download Users Delete
DS With ManyColumns	Data Store With Many Columns	4	24.05.2021 15:14	Darya Trotskaya	24.05.2021 15:16	Download Users Delete
DS With Long Data	Data Store With long data	1	24.05.2021 15:14	Darya Trotskaya	24.05.2021 15:16	Download Users Delete

Rows per page: 10 1-4 of 4

© 2021 IBA Group. All rights reserved. v2.1.0-36221/2.1-SNAPSHOT-36232

Add New Records manually

1. Click **CREATE NEW**:

Data Stores / Product

Data Store Details ← Back to list

Filter by text

Refresh Delete

<input type="checkbox"/>	System Id ↑↓	Product Name ↑↓	Product Description ↑↓	Price ↑↓	Count ↑↓	
<input type="checkbox"/>	1	BMW	Car	\$150,000.00	100	
<input type="checkbox"/>	2	HP	Laptop	\$11.00	2500	
<input type="checkbox"/>	3	Lenovo	Laptop	\$23.00	450	
<input type="checkbox"/>	4	Iphone	Mobile phone	\$95.00	675	

Options **CREATE NEW**

Rows per page: 10 1-4 of 4 |< < > >|

© 2021 IBA Group. All rights reserved. v2.1.0-36221/2.1-SNAPSHOT-36232

2. Enter values to each column header field in the **New record** popup panel and click **CREATE**:

Data Stores / Product

Data Store Details ← Back to list

Filter by text

Refresh Delete

<input type="checkbox"/>	System Id ↑↓	Product Name ↑↓	Product Description ↑↓	Price ↑↓	Count ↑↓	
<input type="checkbox"/>	1	BMW	Car	\$150,000.00	100	
<input type="checkbox"/>	2	HP	Laptop	\$11.00	2500	
<input type="checkbox"/>	3	Lenovo	Laptop	\$23.00	450	
<input type="checkbox"/>	4	Iphone	Mobile phone	\$95.00	675	

Options **CREATE NEW**

New Record ✕

Product Name
Volvo

Product Description
Car

Price
\$130,000

Count
270

CREATE

Rows per page: 10 1-4 of 4 |< < > >|

© 2021 IBA Group. All rights reserved. v2.1.0-36221/2.1-SNAPSHOT-36232

Upload a file to Data Store

1. Click **Options** and select **Import Data Store Records**:

Data Stores / Product

Data Store Details ← Back to list

Filter by text

Refresh Delete

System Id	Product Name	Product Description	Price	Count
1	BMW	Car	\$150,000.00	100
2	HP	Laptop	\$11.00	2500
3	Lenovo	Laptop	\$23.00	450
4	Iphone	Mobile phone	\$95.00	675

Options CREATE NEW

- Export Data Store CSV
- Export Data Store EXCEL
- Clear Data Store
- Import Data Store Records

Rows per page: 10 1-4 of 4

© 2021 IBA Group. All rights reserved. v2.1.0-36221/2.1-SNAPSHOT-36232

2. Choose file format:

Data Stores / Product

Data Store Details ← Back to list

Filter by text

Refresh Delete

Options CREATE NEW

Upload Data Store entries

Please, provide a file with data store records

ADD

Choose file format

DEFAULT

CANCEL UPLOAD

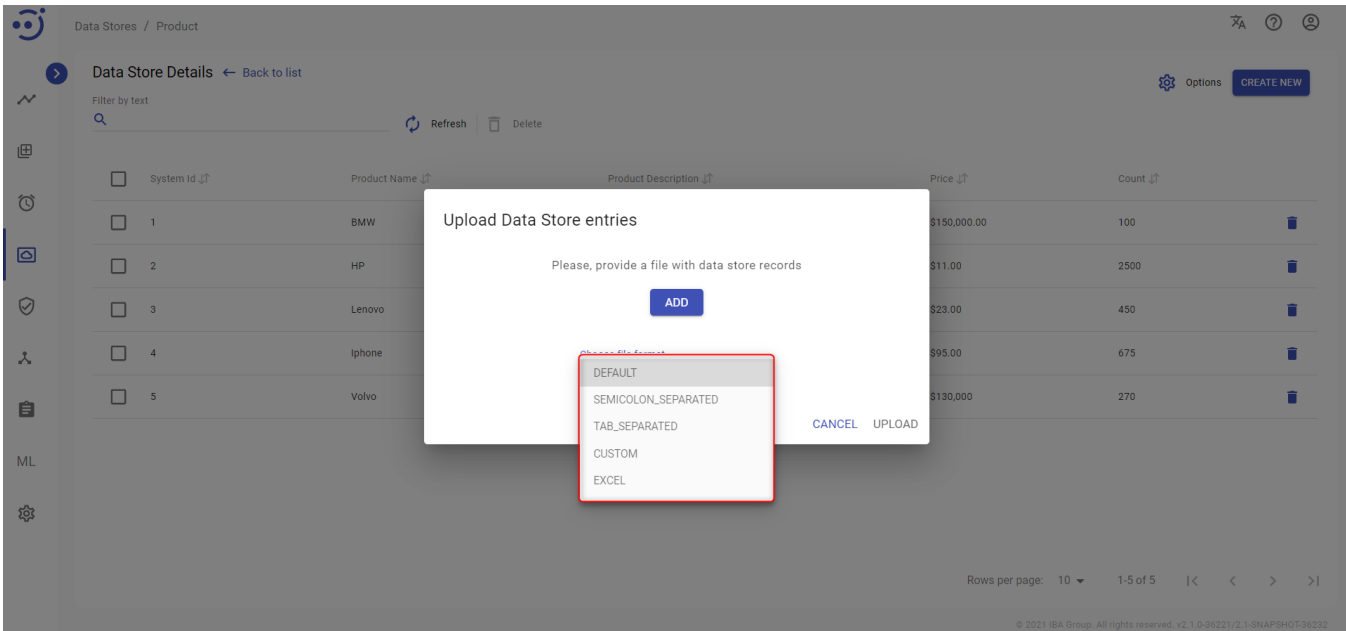
System Id	Product Name	Product Description	Price	Count
1	BMW	Car	\$150,000.00	100
2	HP	Laptop	\$11.00	2500
3	Lenovo	Laptop	\$23.00	450
4	Iphone	Mobile phone	\$95.00	675
5	Volvo		\$130,000	270

Rows per page: 10 1-5 of 5

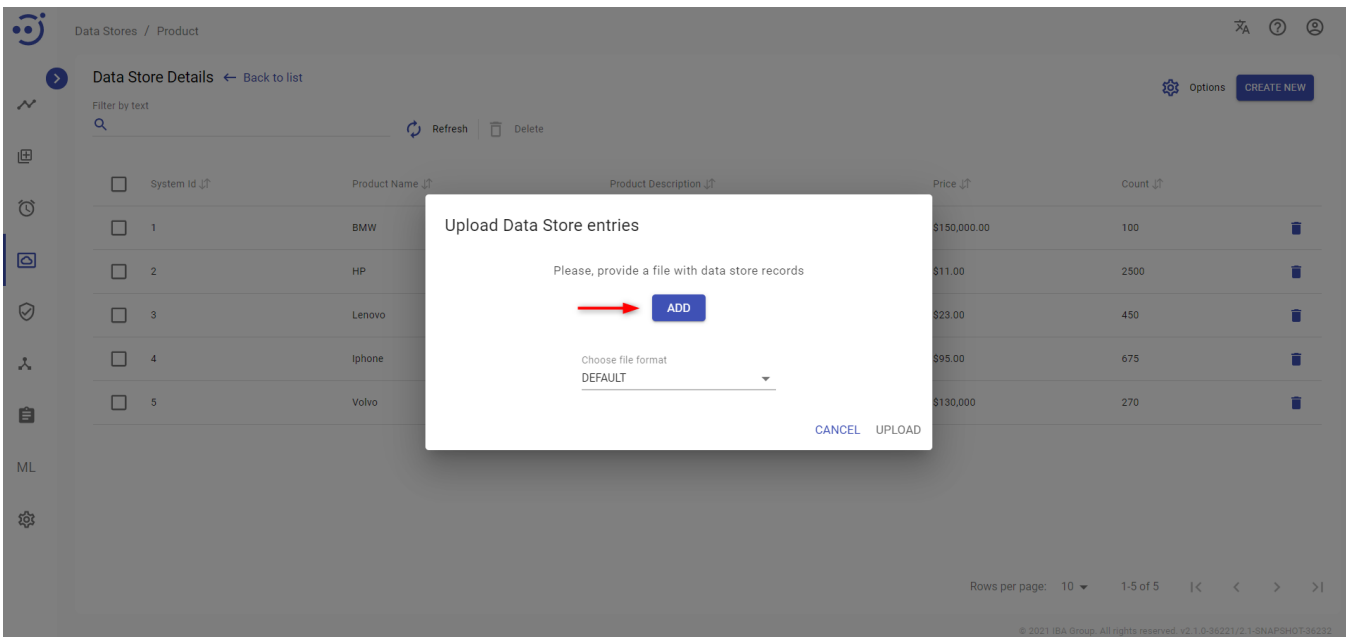
© 2021 IBA Group. All rights reserved. v2.1.0-36221/2.1-SNAPSHOT-36232

File format settings:

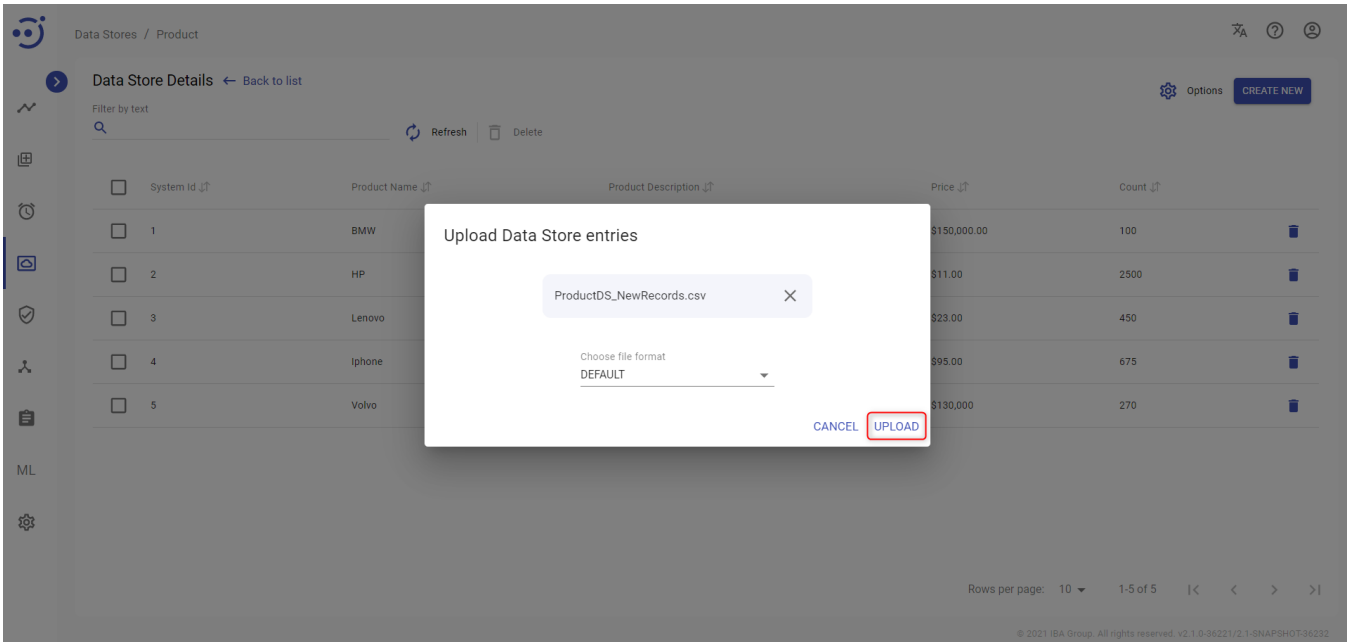
- DEFAULT - CSV file as a delimiter comma (,)
- SEMICOLON_SEPARATED - CSV file as a delimiter semicolon (;)
- TAB_SEPARATED - CSV file as a delimiter tab (\t)
- CUSTOM - CSV file as a delimiter comma (,) other options - for advanced user.
- EXCEL - Excel file in *.xlsx format. ⚠️ For correct import excel file use text format.



3. Click **ADD** to select file:



4. Click **UPLOAD** for load the file:

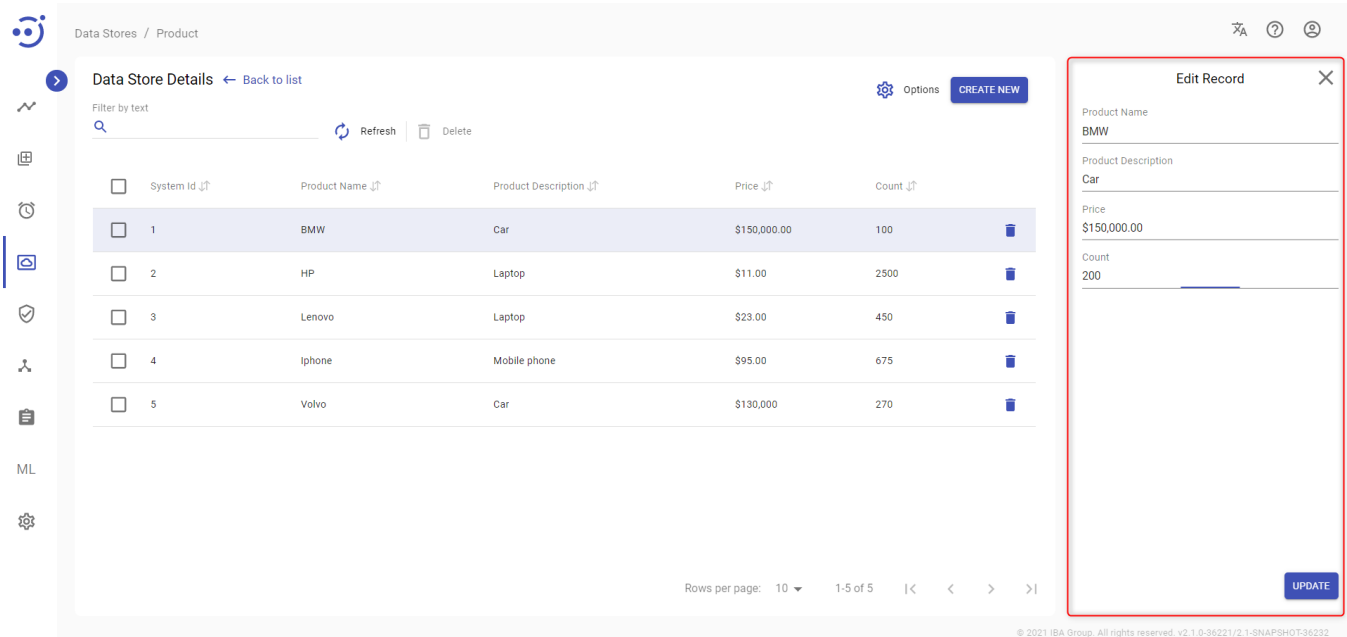


⚠ The column headers in the chosen file should be the same as in the existing Data Store to be mapped properly. Only the values with the same column headers will be added to the Data Store, the other will stay blank. If no match in column headers will be found, then empty records will be added to the Data Store.

View/Edit an existing Record in Data Store

To update an existing Record, you need to:

- Click on the corresponding Record.
- Change one of the field values in the **Edit Record** popup panel.
- Click **UPDATE**.



(v. 2.2) Secret Vault

- [Create a New Secure Entry](#)
- [Upload a New Secret Vault Entry](#)
- [View/Edit an Existing Secure Entry](#)
- [Delete an Existing Secure Entry](#)
- [Control icons](#)

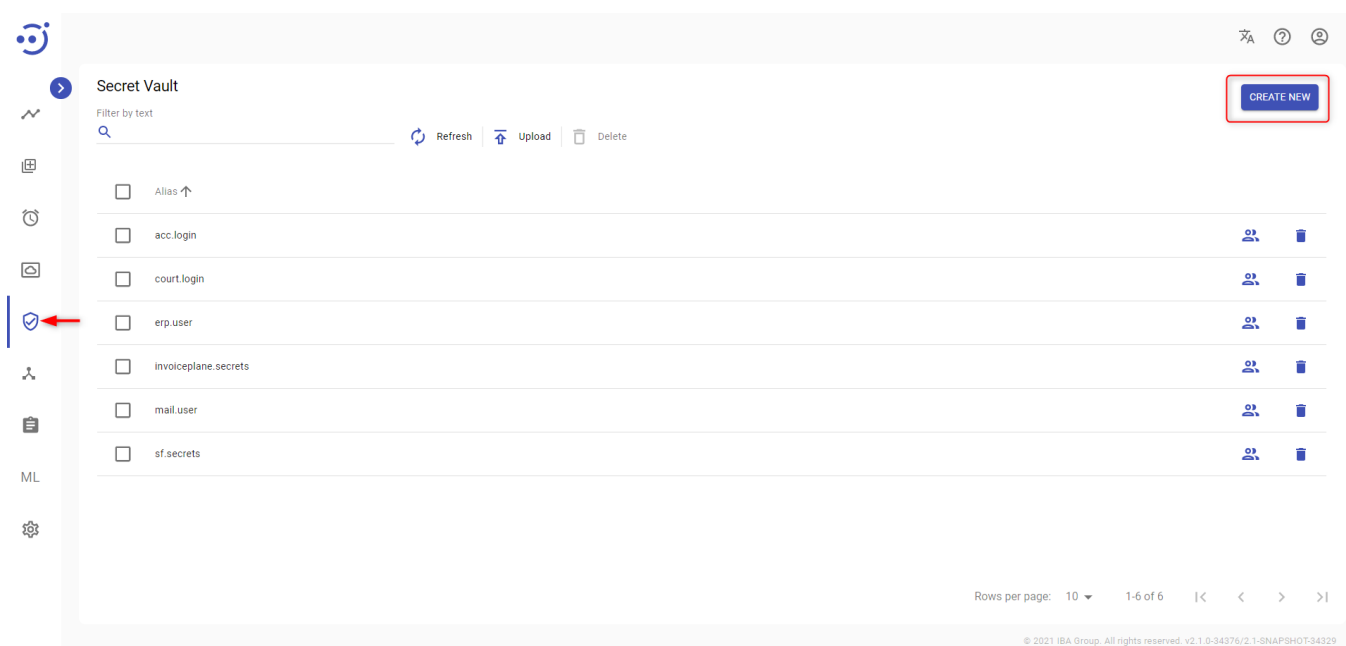
EasyRPA Control Server provides Secrets Vault functionality intended for storing sensitive data (i.e., login, password).

To navigate to Secret Vault module and view the list of secret vault entries, you need to be granted SecretVault-READ. To get Secret Vault details, you need to be granted SecretVault-READ permission. See [\(v. 2.2\) Role Permissions](#).

Create a New Secure Entry

To create a new secret entry:

1. Go to the Secret Vault module and click **Create New**.



2. In the **New Secret Entry** pop-up panel:

- Enter a unique **alias** to distinguish the secret entry.
- Enter **value**. The user can create new entries by adding sensitive data both in *TEXT* and *JSON* format.

New Secret Entry



Alias *

rpa.secrets

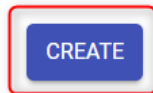
Value *



```
1 {  
2   "user": "rpasecrets",  
3   "password": "password!1"  
4 }
```



JSON



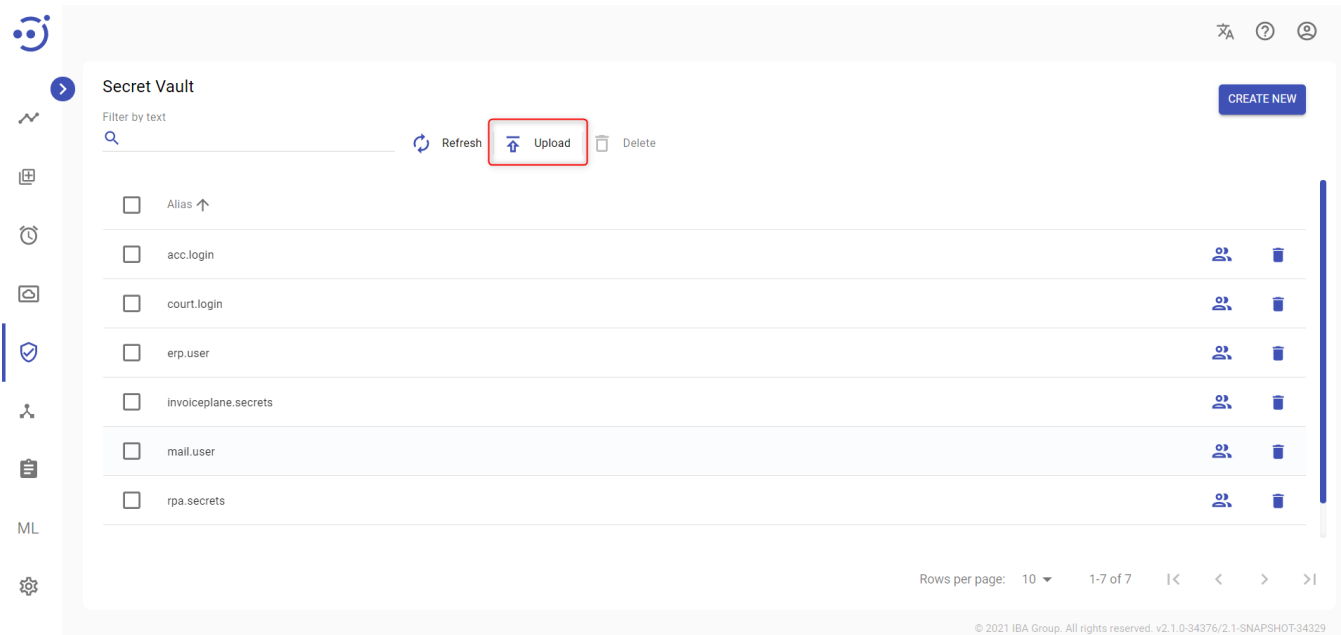
3. Click the **Create** button.

To create a new Secret Vault entry, you need to be granted SecretVault-CREATE permission. See [\(v. 2.2\) Role Permissions](#).

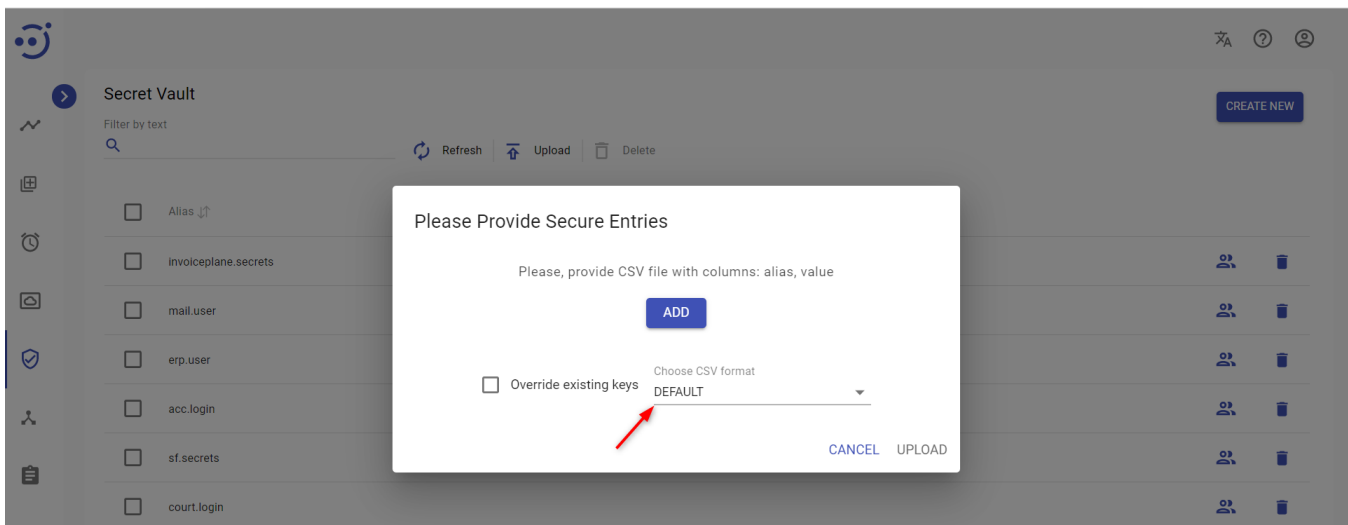
Upload a New Secret Vault Entry

The other way to create the secret vault is to **Upload File** with secure entry in CSV format:

1. Click **Upload File**

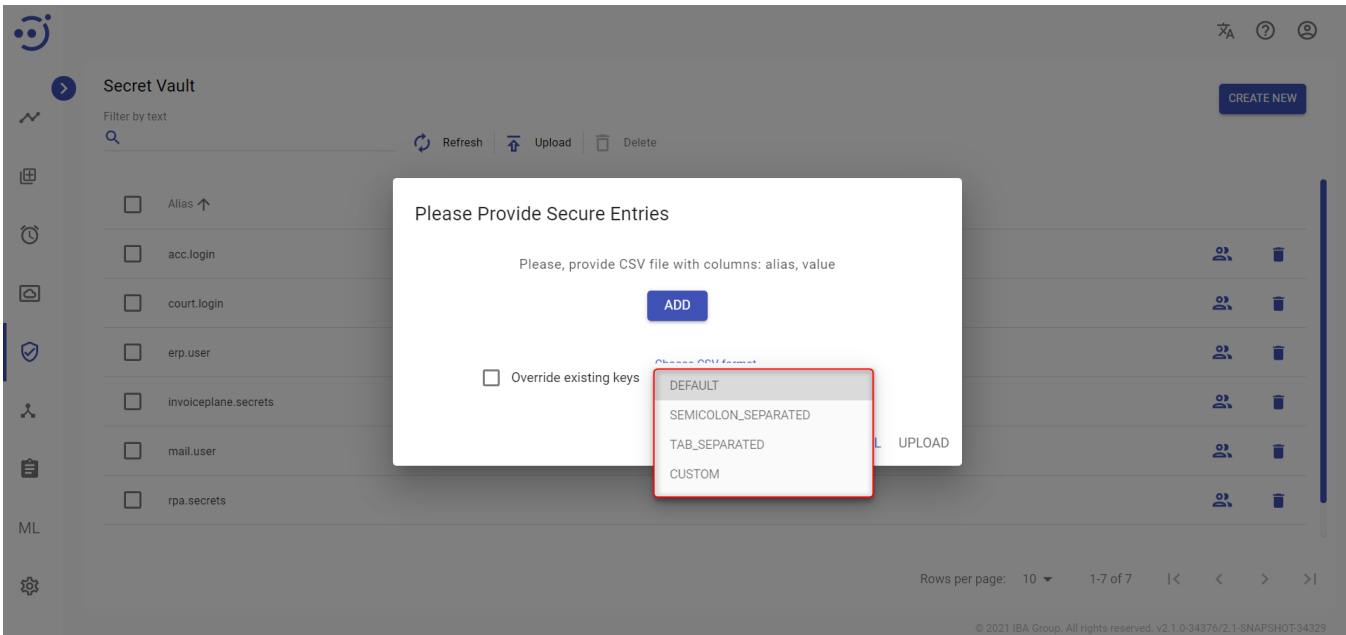


2. Choose CSV format:



CSV format settings:

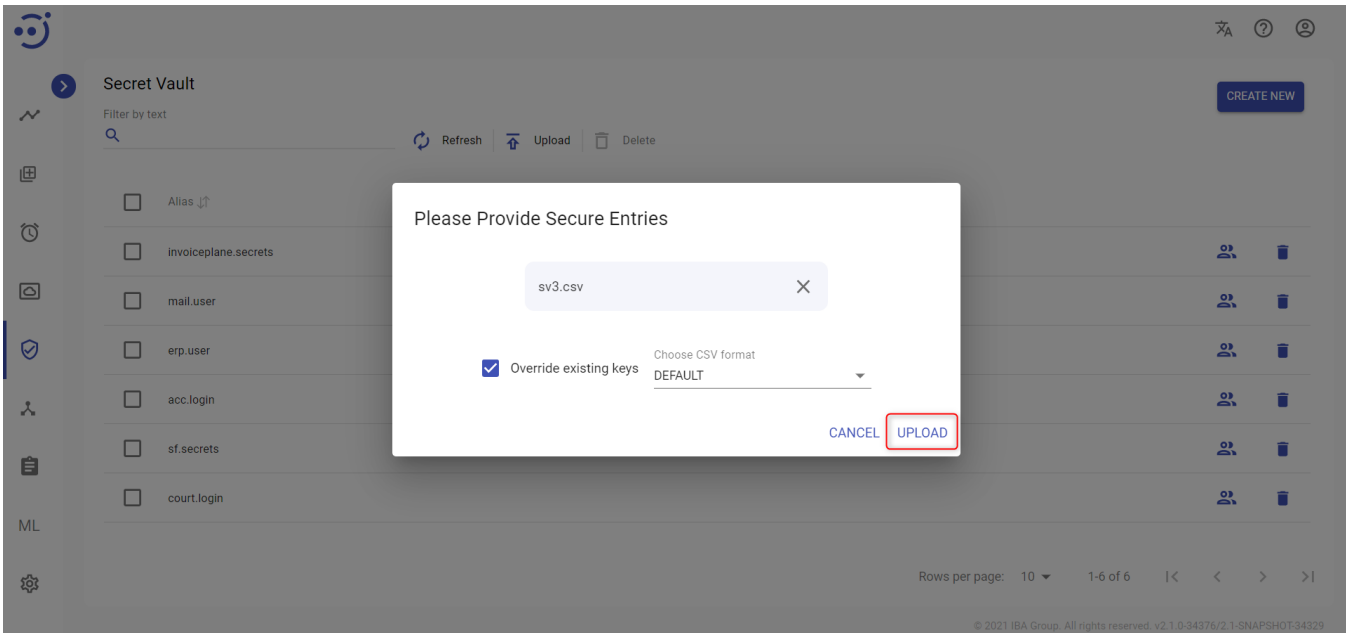
- DEFAULT - CSV file as a delimiter comma (,)
- SEMICOLON_SEPARATED - CSV file as a delimiter semicolon (;)
- TAB_SEPARATED - CSV file as a delimiter tab (\t)
- CUSTOM - CSV file as a delimiter comma (,) other options - for advanced user.



3. Click **Add** to select CSV file and provide CSV file with columns: alias, value.

4. Please, use **Override existing keys** checkbox if needed.

5. Click **Upload** for load the file:



To upload a secret vault entry, you need to be granted SecretVault-CREATE permission. See [\(v. 2.2\) Role Permissions](#).

View/Edit an Existing Secure Entry

To view or edit the information about a particular secret entry, edit **value** field provided at the information pop-up and click the **Update** button.

Please, use eye icon for switch on visibility of secret entry.

Edit Secret Vault Entry ✕


Alias *

rpa.secrets

Value *



UPDATE

 Once the secret vault entry created, **alias** cannot be modified.

Edit Secret Vault Entry



Alias *

rpa.secrets

Value *



```
1 ^ {  
2   "user": "rpasecrets",  
3   "password": "password_rpa"  
4 }
```

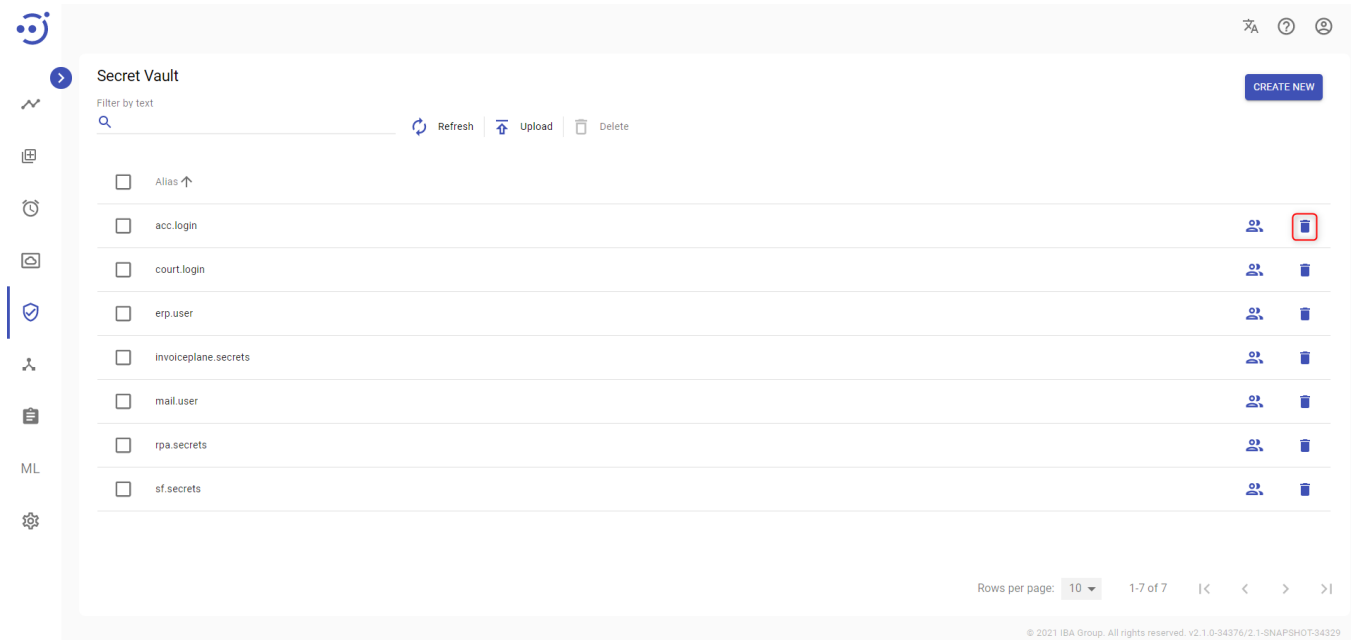
JSON

UPDATE

To update an existing secret vault entry you need to be granted SecretVault-UPDATE permission. See [\(v. 2.2\) Role Permissions](#).

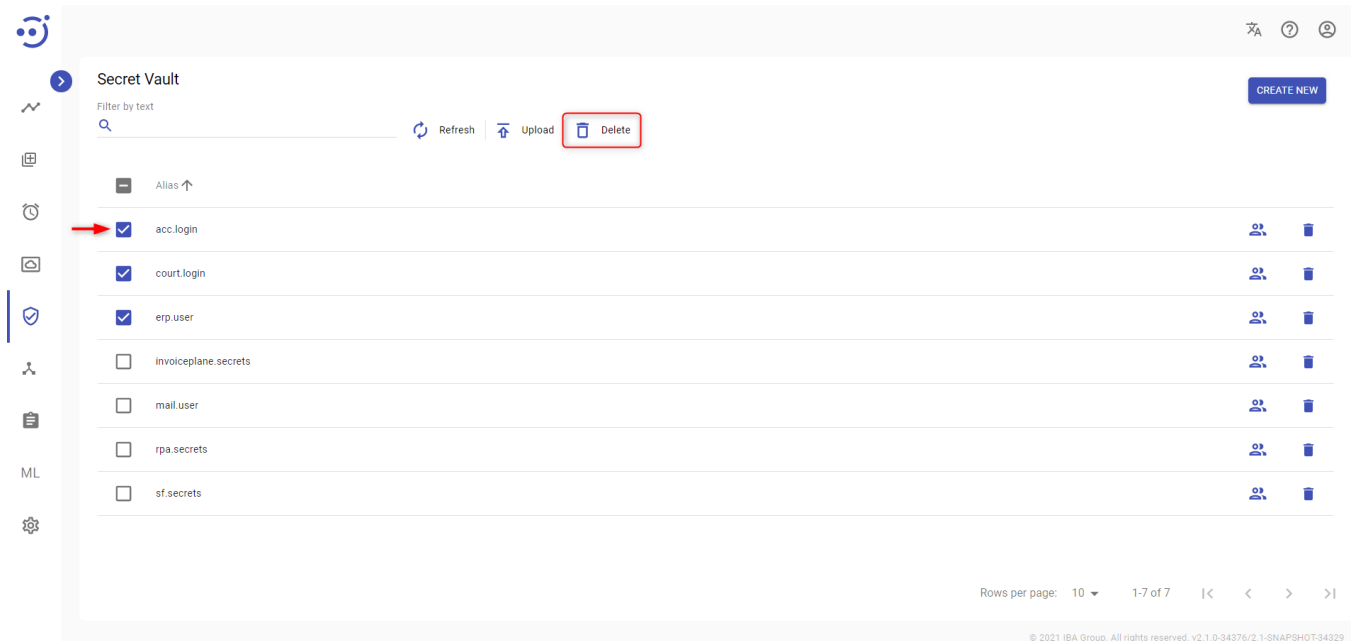
Delete an Existing Secure Entry

To delete the secret entry, use the recycle bin control icon. Required Permission: SecretVault-DELETE. See (v. 2.2) Role Permissions.

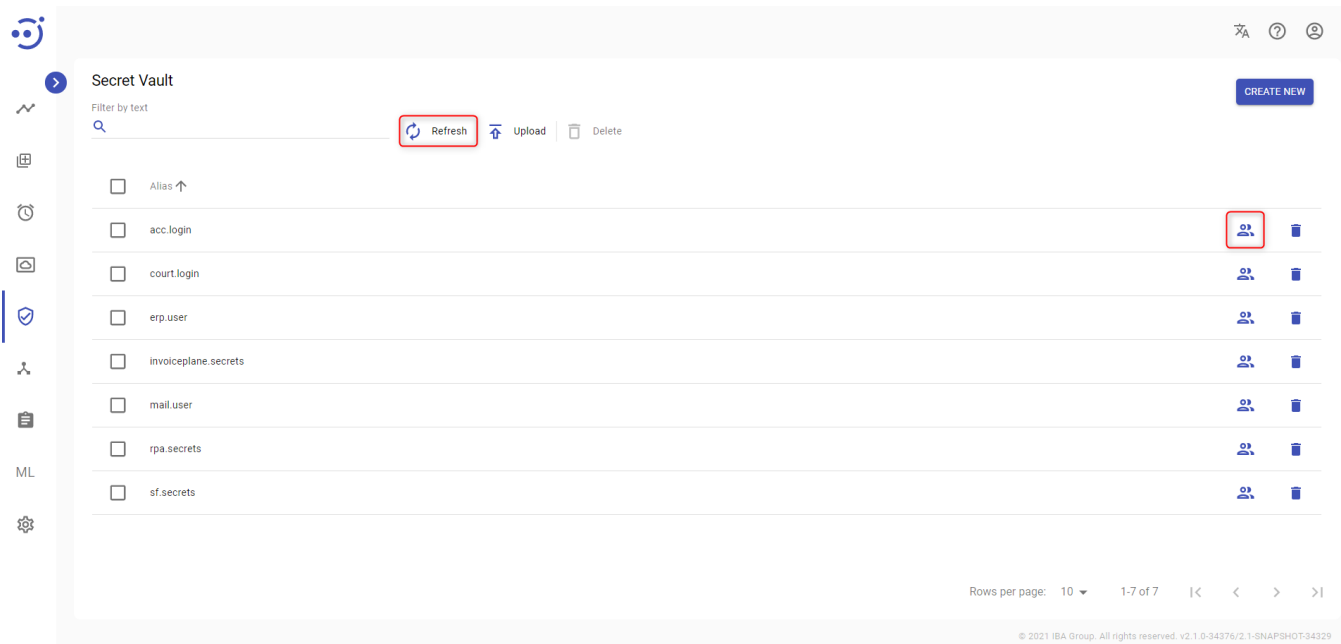


To delete multiple secret entry, you need to:

- Put a tick next to the required secret entry.
- Click **Delete**.



Control icons



- **Refresh** - to pull the last updates from the server.
- **Security Access** - See [Security Access](#).

Filter by text

Filtering allows you to search the Secret Vault by Alias column.

Sorting

Ascending/descending sorting is allowed for the Alias column.

(v. 2.2) Node Management

- [Manage existing Nodes](#)
- [Edit an existing Node](#)
- [Create and configure a new Node](#)

The Node Management module displays a catalog of the available nodes defined by the system. EasyRPA Node is a place where automation processes perform, it can be the same machine as for Control Server or a remote one.

The screenshot shows the Node Management interface. At the top, there's a search bar with the text 'Filter by text' and a 'CREATE NEW' button. Below the search bar are 'Refresh' and 'Delete' buttons. The main area contains a table with the following columns: Name, Description, Capabilities, Last Seen, and Status. The table lists five nodes: NODE 1, NODE 2, NODE 3, NODE 4, and NODE 5 dedicated. NODE 5 dedicated is highlighted with a blue background and has a 'Dedicated' tag. The status of NODE 5 dedicated is 'Down', while the others are 'Available'. At the bottom right, there's a 'Rows per page: 10' dropdown and a '1-5 of 5' indicator.

Name	Description	Capabilities	Last Seen	Status
NODE 1		AP_RUN SELENIUM	27.04.2021 18:10	Available
NODE 2		AP_RUN SELENIUM	27.04.2021 18:10	Available
NODE 3		AP_RUN SELENIUM	27.04.2021 18:10	Available
NODE 4		AP_RUN SELENIUM	27.04.2021 18:10	Available
NODE 5 dedicated	a dedicated node for OCR	AP_RUN SELENIUM	31.12.1901 01:40	Down

To access the Node Management module, you need to be granted Node-READ permission. See [\(v. 2.2\) Role Permissions](#).

Manage existing Nodes

The EasyRPA control server allows managing the node catalog.

Columns Description

- Name - the node name.
- Description - a short description of the node.
- Capabilities - the list of capabilities offered by the node for the automation processes execution.
- Last Seen - the last date and time when the node was Available.
- Status - the status of the node (Available/Down/Busy).

Filter by text

Filtering allows you to search the node by its name, description and Capabilities.

Sorting

Ascending/descending sorting is allowed for the columns: Name, Description, Last Seen.

Control Icons

- **Download node agent package** - Required Permission: Node-ACTION.
- **Restart** - to restart the node. Required Permission: Node-ACTION.
- **Shut down** - to shut down the node. Required Permission: Node-ACTION.
- **Delete** - to delete the node. Required Permission: Node-DELETE.
- **Ping all** - to get the latest state for all the nodes. Required Permission: Node-ACTION.
- **Refresh** - to refresh the page.

Edit an existing Node

Key information about a particular node is available at the pop-up panel at the right by clicking on the corresponding row with the node. To access the Edit Node panel, you need to be granted Node-READ permission for Node context. See (v. 2.2) Role Permissions.

You can edit the displayed fields and save the result by clicking the **Update** button. Required Permission: Node-UPDATE.

The pop-up panel contains the following information:

- Name - the node name.
- Description - a short description of the node functionalities.
- Working Directory - to rewrite the default directory to which the automation process run information is saved.
- Capabilities - the list of capability labels indicating what capabilities the node has.
- Dedicated - the toggle allows you to make the node dedicated. See (v. 2.2) Dedicated Automation Processes.
- Details with Node status

The screenshot shows the 'Node Management' interface. On the left is a sidebar with navigation icons. The main area contains a table of nodes. The 'Edit Node' pop-up panel is open for 'NODE 4', showing fields for Name, Description, Working Directory, Capabilities, Dedicated toggle, and Details (Node status).

Name	Description	Capabilities	Last Seen	Status	Actions
NODE 1		JAVA AP_RUN SELENIUM	28.04.2021 10:49	Available	[Download] [Refresh] [Power] [Users] [Trash]
NODE 2		AP_RUN SELENIUM	28.04.2021 10:49	Available	[Download] [Refresh] [Power] [Users] [Trash]
NODE 3		AP_RUN SELENIUM	28.04.2021 10:49	Available	[Download] [Refresh] [Power] [Users] [Trash]
NODE 4		AP_RUN SELENIUM	28.04.2021 10:49	Available	[Download] [Refresh] [Power] [Users] [Trash]
NODE 5 dedicated	a dedicated node for OCR	AP_RUN SELENIUM	31.12.1901 01:40	Down	[Download] [Refresh] [Power] [Users] [Trash]
RI NODE		JAVA AP_RUN ROMA SELENIUM	28.04.2021 10:29	Down	[Download] [Refresh] [Power] [Users] [Trash]

Edit Node Panel (NODE 4):
Name: NODE 4
Description: [Empty]
Working Directory: c:\easy_rpa\node_agent\node_04
Capabilities: AP_RUN, SELENIUM
Dedicated: [Toggle Off]
Details: Node status: Available

For more information about the node - click **Details**. Required Permission: Node-READ.

This screenshot is identical to the previous one, but with a red arrow pointing to the 'DETAILS' button in the 'Edit Node' pop-up panel.

Create and configure a new Node

Read more about how to create and configure a new node in **Node agent installation**.

(v. 2.2) Node Details

- [Details](#)
- [Configuration Parameters](#)
- [Runs](#)
- [Node features](#)
- [Node logs](#)
- [Node Status Lifecycle](#)
- [Notifications](#)

The Node Details page contains general information about node, configuration parameters for this node, automation processes executed on this node, features, and logs. You can view/edit node details, configuration parameters and manage automation process runs. To access the Node Details, you need to be granted Node-READ permission. See [Role Permissions](#) .

Details

The Details tab displays general settings that are necessary for the Node creation. If at least once the node agent was started and at least once automation process was launched, information about node agent, features and about the last automation process executed on this node is displayed on the tab.

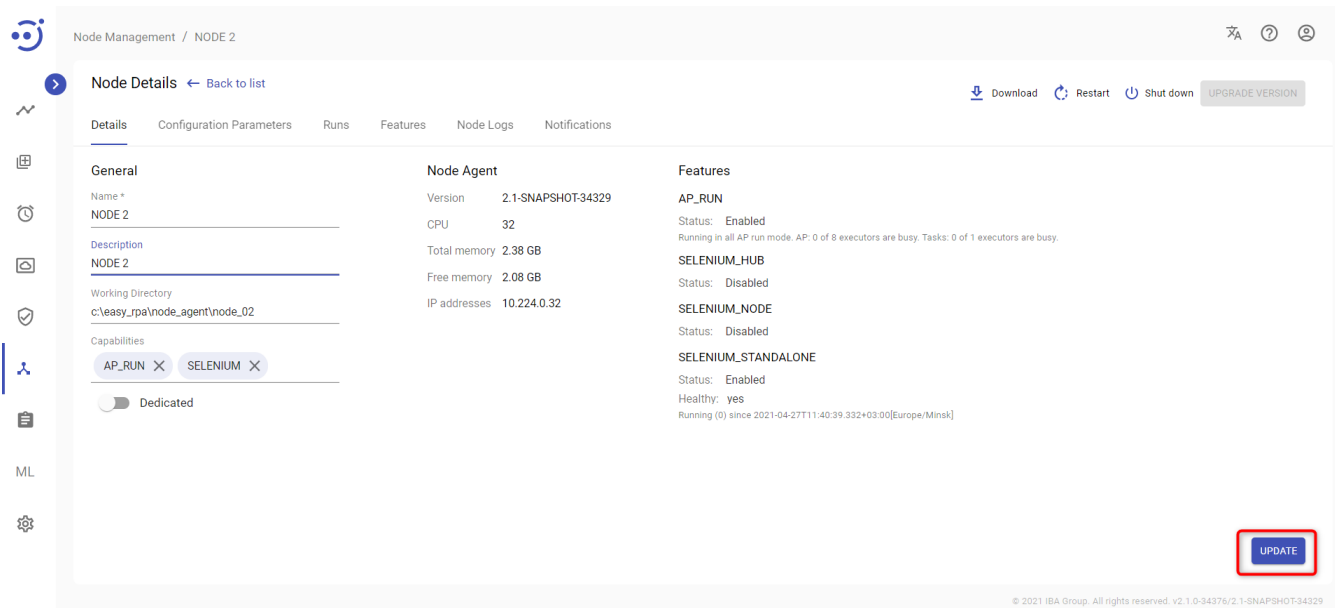
To view/edit node details, you need to:

- Navigate to the **Node management** module.
- Click on the corresponding Node Name.

The screenshot shows the 'Node Management' interface. It features a search bar, a 'Refresh' button, and a 'Delete' button. Below these is a table with the following columns: Name, Description, Capabilities, Last Seen, and Status. The table contains six rows of node data. A red arrow points to the 'NODE 2' row. The interface also includes a sidebar with navigation icons and a footer with the text '© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329'.

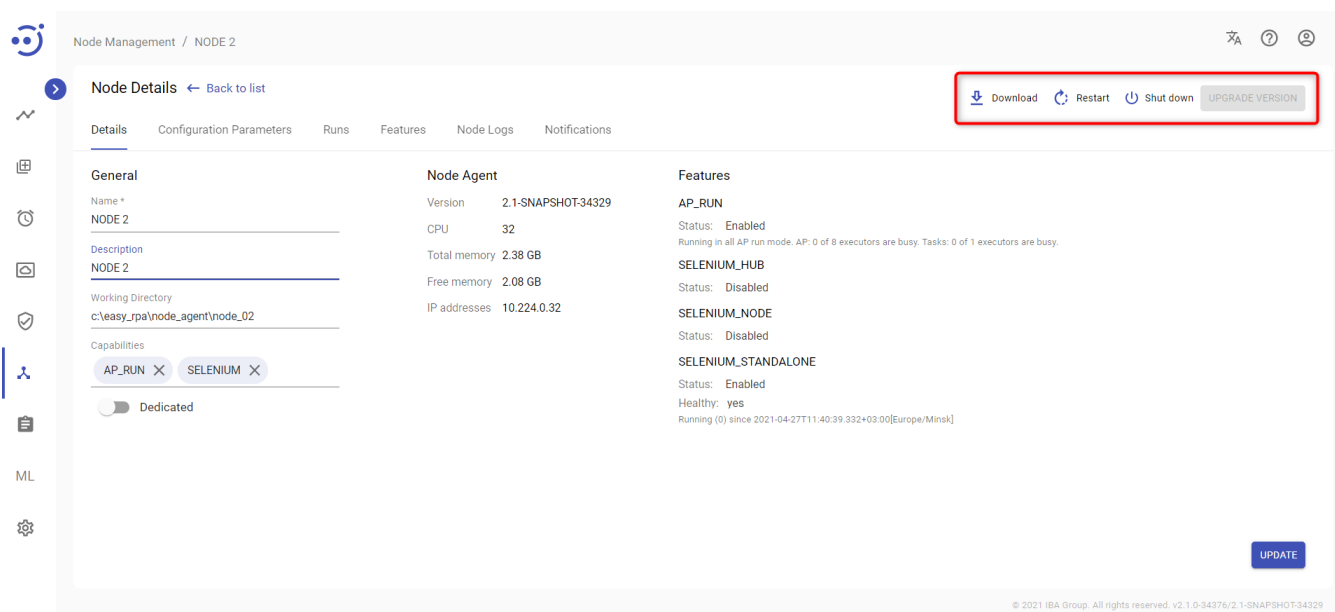
Name	Description	Capabilities	Last Seen	Status
NODE 1 Dedicated		JAVA AP_RUN SELENIUM	29.04.2021 10:34	Available
NODE 2		AP_RUN SELENIUM	29.04.2021 10:34	Available
NODE 3		AP_RUN SELENIUM	29.04.2021 10:34	Available
NODE 4		AP_RUN SELENIUM	29.04.2021 10:34	Available
NODE 5 dedicated Dedicated	a dedicated node for OCR	AP_RUN SELENIUM	31.12.1901 01:40	Down
RI NODE		JAVA AP_RUN RI SELENIUM	28.04.2021 15:18	Down

- Change one of the field values.



- Click **Update**.

To update the Node Details, you need to be granted Node-UPDATE permission. See (v. 2.2) [Role Permissions](#).



Control icons

- **Download node agent package** - Required Permission: Node-ACTION.
- **Restart** - to restart the node. Required Permission: Node-ACTION.
- **Shut down** - to shut down the node. Required Permission: Node-ACTION.
- **Upgrade version** - to upgrade node version to Control Server version. Required Permission: Node-ACTION.

Fields Description

General:

- **Name** - the node name.
- **Description (optional)** - a short description of the node functionalities.
- **Working Directory (optional)** - to save drivers and other necessary files for running processes in a specific folder. By default, this is %Temp%\NODE NAME\.
- **Capabilities** - the list of capability labels indicating what capabilities the node has.
- **Dedicated** - the toggle allows you to make the node dedicated. See (v. 2.2) [Dedicated Automation Processes](#).

Node Agent:

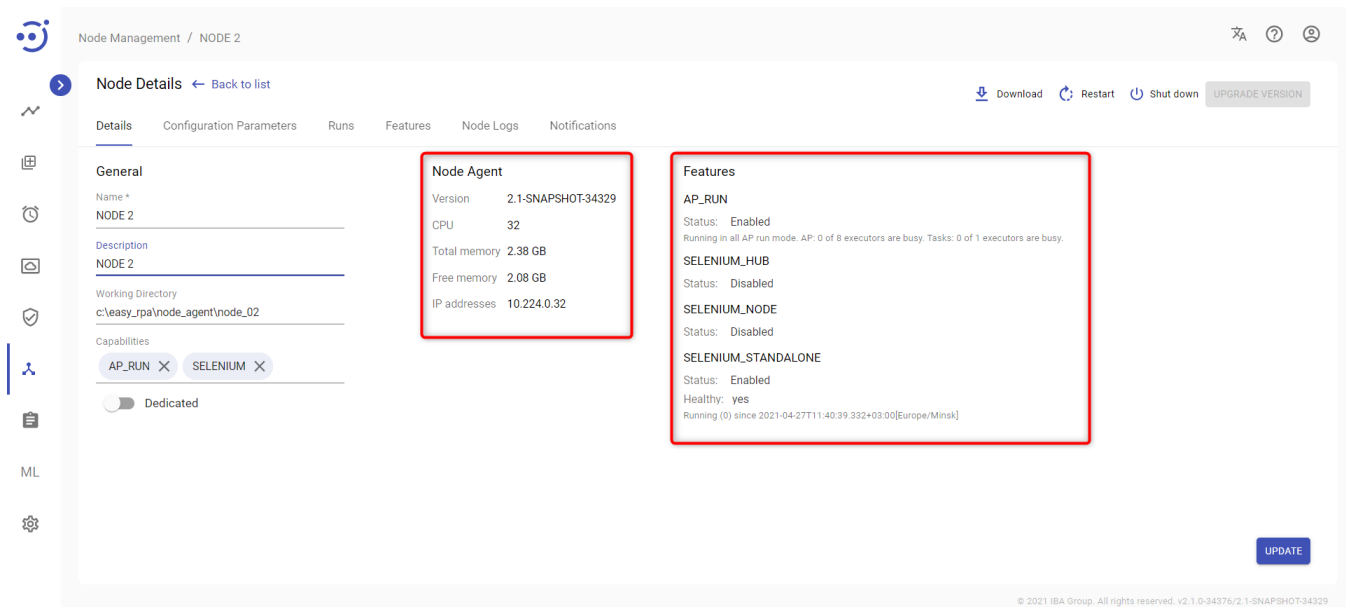
This group of fields represents physical characteristics of the node.

- Version of the node agent
- CPU - bit amount of the node's CPU
- Total memory - memory volume of the node
- Free memory - memory volume available for usage
- IP address - IP address of the node

Features

See [Node features](#) for detailed information.

- Feature name
- Status
- Healthy
- Timestamp of run



Node Management / NODE 2

Node Details ← Back to list

Download Restart Shut down UPGRADE VERSION

Details Configuration Parameters Runs Features Node Logs Notifications

General

Name *
NODE 2

Description
NODE 2

Working Directory
c:\easy_rpa\node_agent\node_02

Capabilities
AP_RUN X SELENIUM X

Dedicated

Node Agent

Version 2.1-SNAPSHOT-34329
CPU 32
Total memory 2.38 GB
Free memory 2.08 GB
IP addresses 10.224.0.32

Features

AP_RUN
Status: Enabled
Running in all AP run mode. AP: 0 of 8 executors are busy. Tasks: 0 of 1 executors are busy.

SELENIUM_HUB
Status: Disabled

SELENIUM_NODE
Status: Disabled

SELENIUM_STANDALONE
Status: Enabled
Healthy: yes
Running (0) since 2021-04-27T11:40:39.332+03:00[Europe/Minsk]

UPDATE

© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

Configuration Parameters

The Configuration Parameters tab displays the list of node parameters in the form of key-value pairs. Here you can specify the parameters required to start the automation process on the current node.

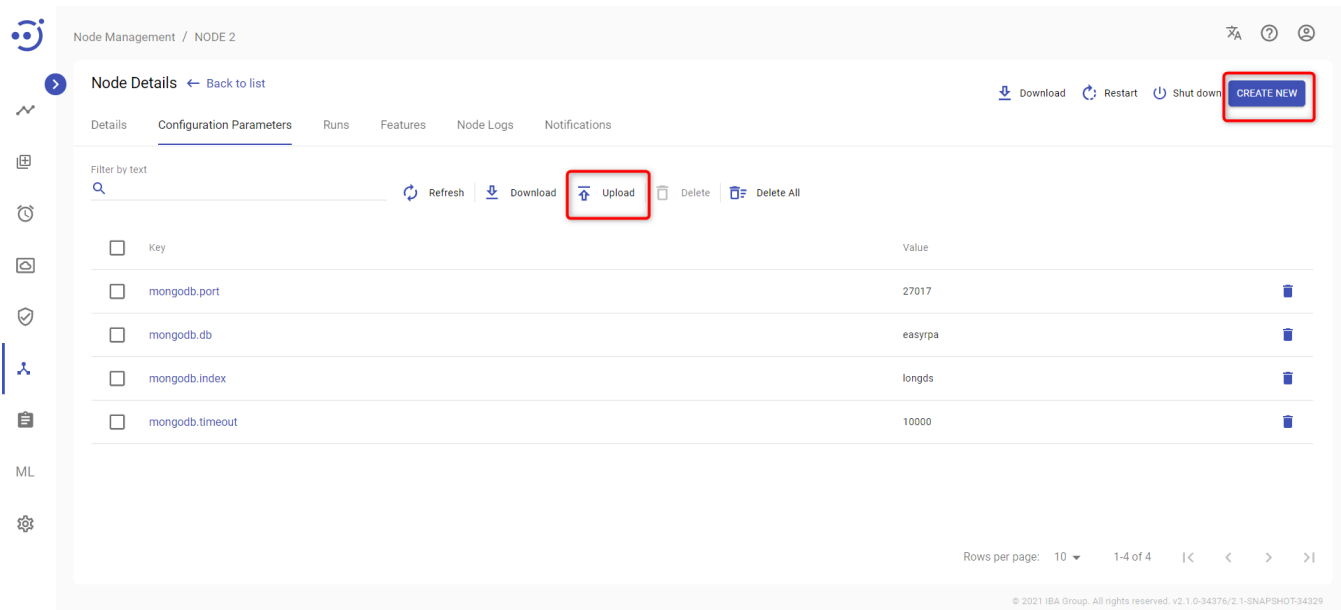
To access the Configuration Parameters, you need to be granted Node-READ permission. See [\(v. 2.2\) Role Permissions](#).

⚠ If the same parameter with a different value is present in the CS Configuration and the Automation Process Configuration Parameters modules, the priority is assigned in the following order: Node Configuration Parameter -> Automation Process Configuration Parameter -> CS Configuration Parameter.

Add Configuration Parameter

There are 2 ways to **Add** a new configuration parameter:

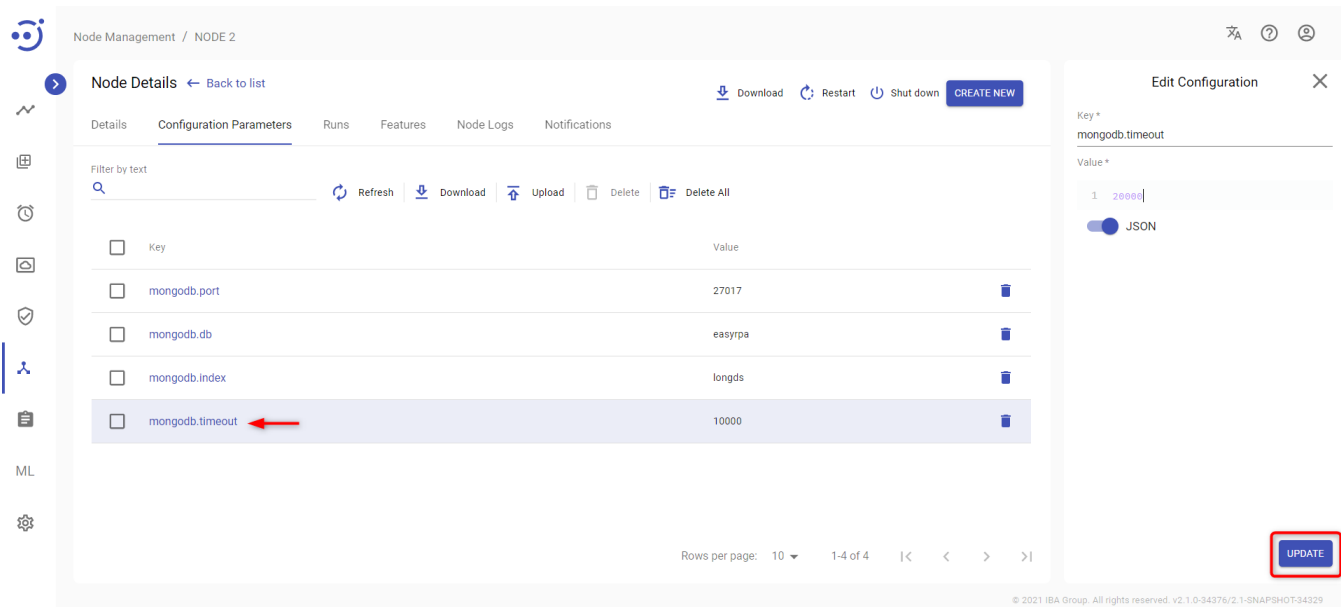
- Click **Create New** and add configuration parameter manually. Required Permission: Node-UPDATE.
- Click the **Upload** icon and import the CSV file. Required Permission: Node-UPDATE.



Update Configuration Parameter

To **Update** an existing configuration parameter, you need to:

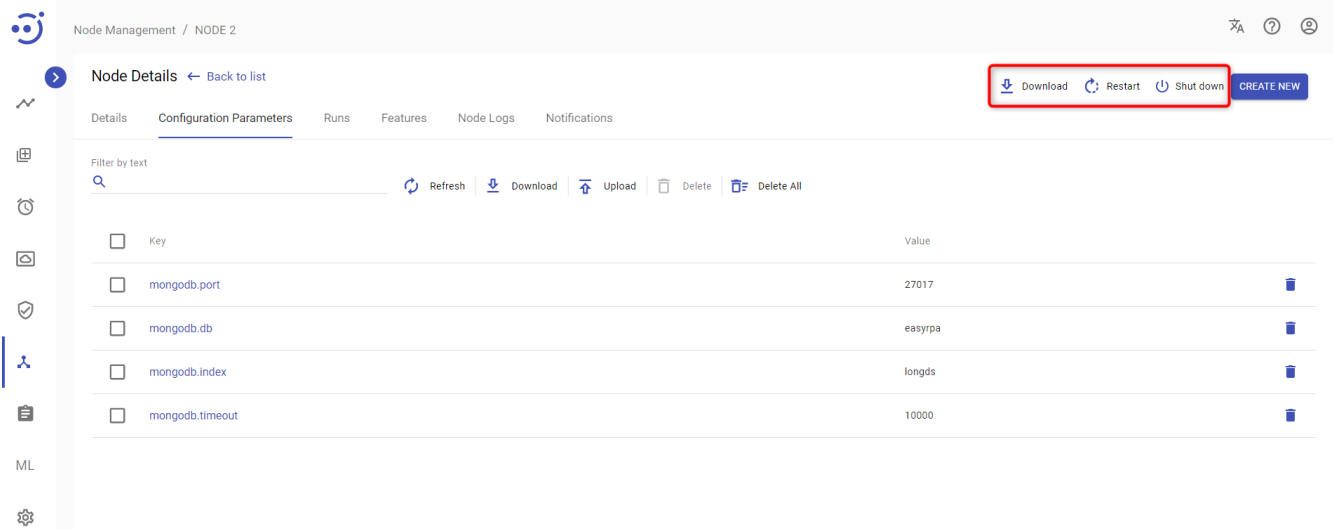
- Click on the corresponding configuration parameter.
- Change one of the field values.



- Click **Update**.

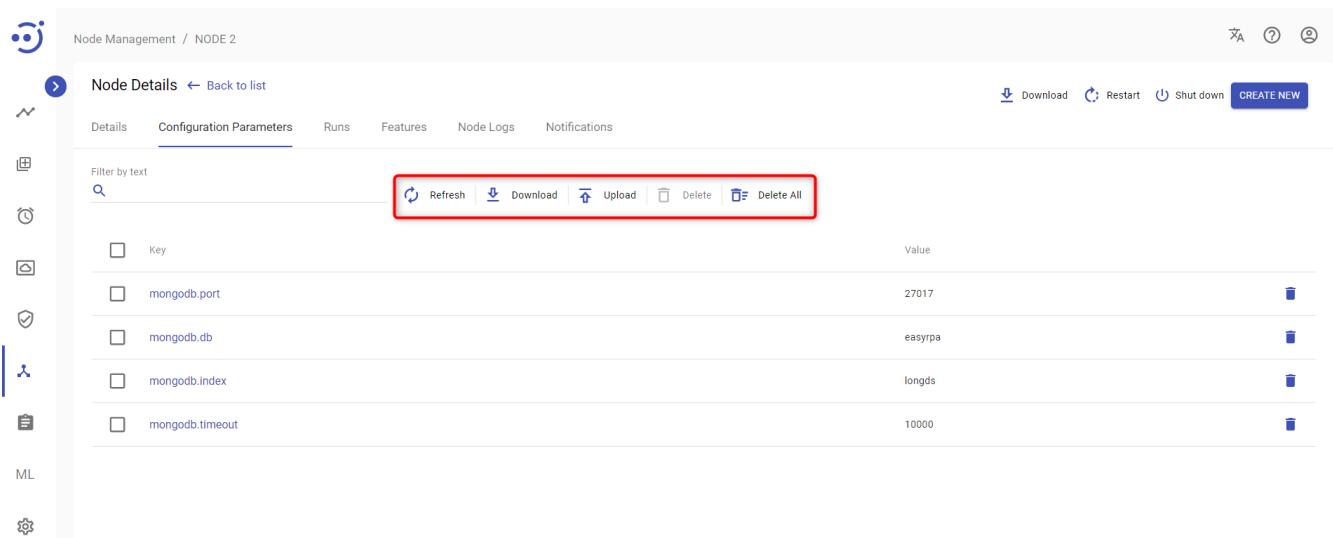
To update the Automation Process Configuration Parameters, you need to be granted Node-UPDATE permission. See [Role Permissions](#).

In the upper-right corner of the Node Details there are Node Control icons that remain the same for all the tabs:



- **Download** - to download node agent package. Required Permission: Node-ACTION.
- **Restart** - to restart the node. Required Permission: Node-ACTION.
- **Shut down** - to shut down the node. Required Permission: Node-ACTION.

There are also tab-specific controls regarding Configuration Parameters:



Control icons

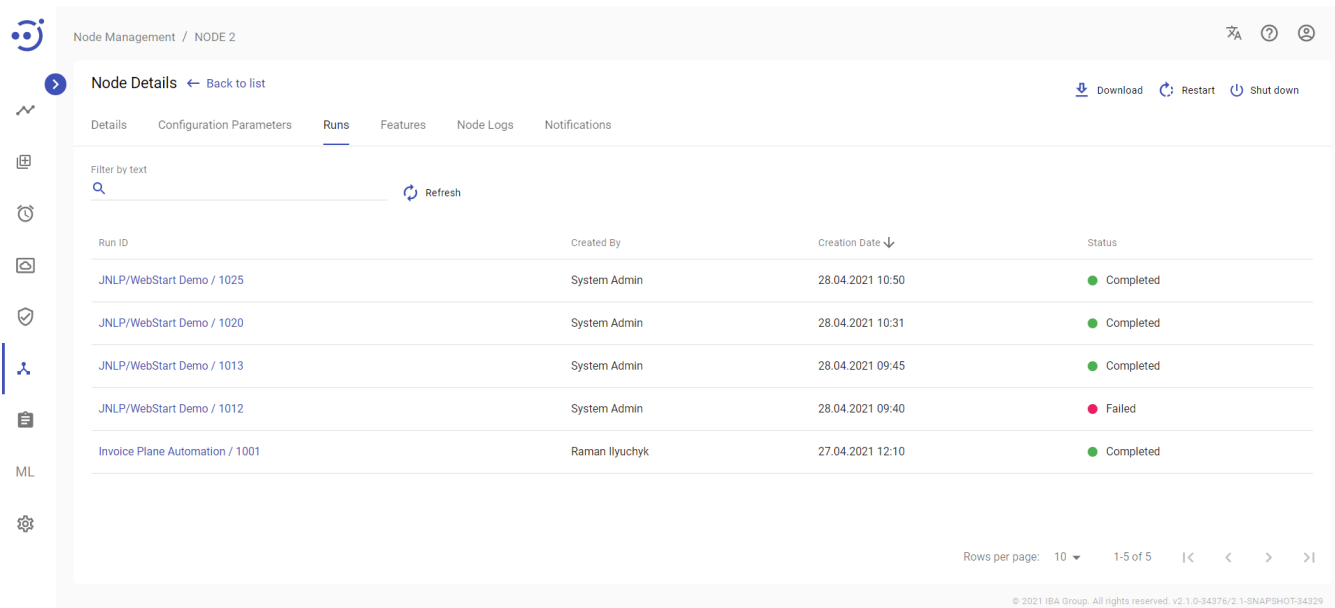
- **Refresh** - to refresh configuration parameters' list
- **Download** - to download existing configuration parameters in CSV file. Required permission: Node-READ.
- **Upload** - to import new configuration parameters from CSV file. Required Permission: Node-UPDATE.
- **Delete** - to delete the configuration parameter. Required Permission: Node-UPDATE.
- **Delete all** - to delete all configuration parameters of this node. Required Permission: Node-UPDATE.

Filter by text

Filtering allows you to search the configuration parameter by Key, Value columns.

Runs

The Runs tab contains information about all the runs that were started on this node and their statuses. You can manage the automation process runs using control buttons. To access the Automation Processes Runs, you need to be granted AutomationProcess-READ permission. See (v. 2.2) [Role Permissions](#).



Columns Description

- Process name / Run ID - the automation process name / numeric identifier of the particular process run.
- Created By - the First and Last names of the user who started the automation process. The automation process runs initiated by the schedule will have System Scheduler value
- Creation Date - the date and time when the Run was created.
- Status - the current status of the Run.

Filter by text

Filtering allows you to search the automation process by its name (Run ID column) and author (Created By column).

Sorting

Ascending/descending sorting is allowed for the Creation Date column.

Related pages

Clicking on the Process name / Run ID value will lead to the "History" page of the selected automation process run. See [Automation Process Run](#) for more information.

See [Automation Process Run Status Lifecycle](#) for more information about the automation process statuses and control icons.

Node features

See [Node features](#) for detailed information about this tab.

Node logs

The Node Logs tab displays the logs of the particular node. There are displayed only 10 000 log records (All records can be downloaded in the .txt file). To access the Node Logs, you need to be granted Node-READ permission. See [Role Permissions](#) .

Control icons

General:

- Download - to download node agent package - Required Permission: Node-ACTION.
- Restart - to restart the node. Required Permission: Node-ACTION.
- Shut down - to shut down the node. Required Permission: Node-ACTION.

Tab-specific:

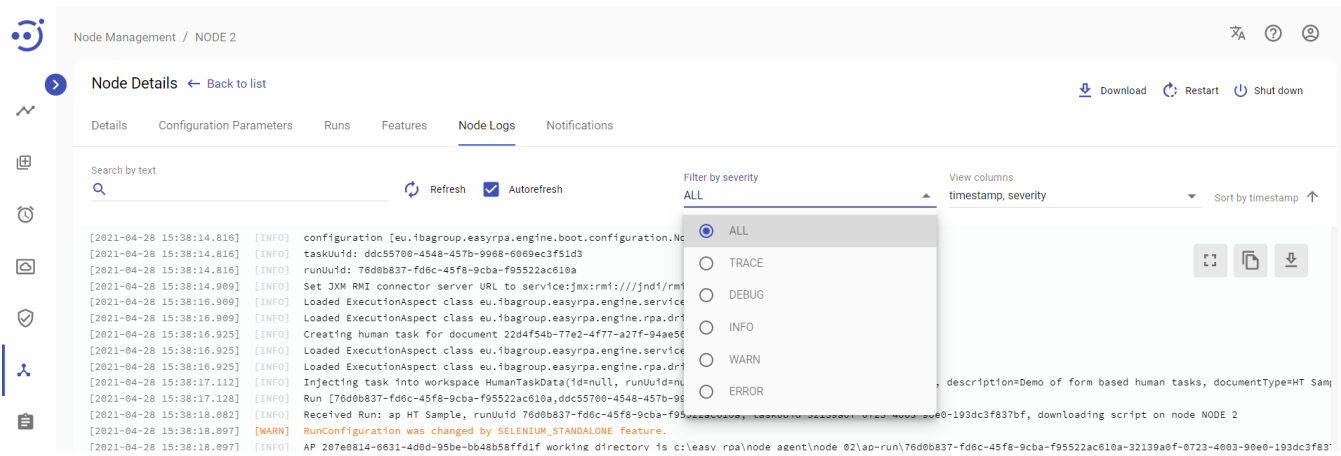
- Refresh - to pull the latest logs from the server.
- Autofresh checkbox - to turn on/off an automatic refresh of logs.

Search by text

You can search for a particular log by its text. The logs found are highlighted in yellow.

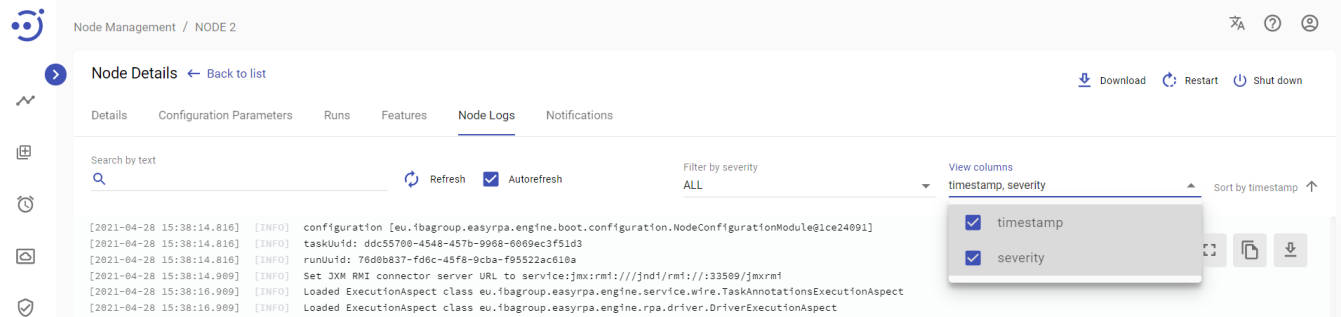
Filter by severity

Filtering allows you to choose the level of severity of the displayed logs from the dropdown menu. The available options are as follows:



View columns

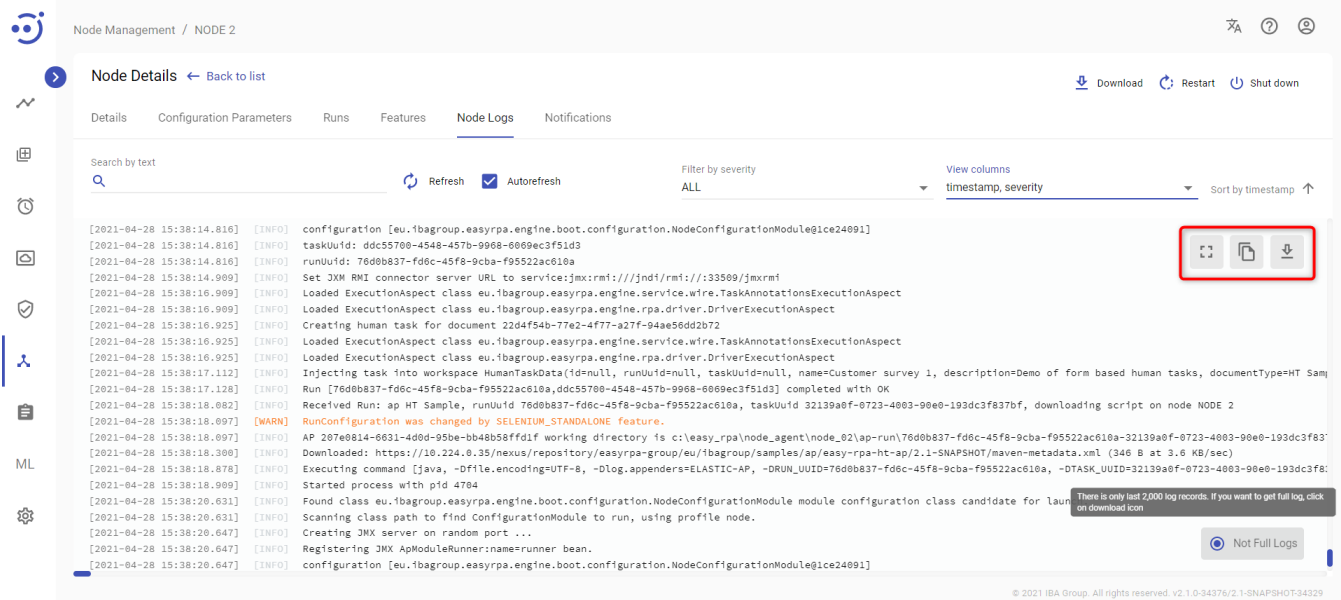
You can add or remove the columns timestamp/severity from the event log view.



Sort by timestamp

Ascending/descending logs sorting by the timestamp is allowed.

In the upper-right corner of the logs window there are buttons for opening logs in the full browser window, copy logs to the clipboard and download a .txt file with logs



The following section describes the life cycle of the node and the corresponding statuses that it may have.

Node Status Lifecycle

- **Available** - describes the state when the node is ready for use (the Node agent is started).
- **Down**- the Node agent was not started.
- **Busy** - describes the state when the automation process is executed on the node.
- **Stopping** - describes a transition state before stop/deletion.

Control icons

The following actions can be applied to the node with corresponding statuses:

	Restart	Shut down	Delete
Available			
Down			
Busy			
Stopping			

Notifications

The Notifications tab allows users to receive messages about a particular AP Run. To access the Notifications, you need to be granted Node-READ permission. See (v. 2.2) [Role Permissions](#).

The screenshot shows the 'Node Management / test01' interface. The 'Node Details' page is active, with the 'Notifications' tab selected. The interface includes a sidebar with navigation icons, a top navigation bar with 'Node Details' and 'Back to list', and a main content area with a table of notifications. The table has columns for Trigger, Template, and Channel. A 'Refresh' button and a 'Delete' button are visible above the table. A 'CREATE NEW' button is also present in the top right corner.

Columns Description

- Trigger - the action for which the message is sent to the particular channel.
- Template - example of a message is sent to a channel.
- Channel - mailing list of contacts.

Control icons

- Refresh - to refresh the page.
- Delete - to delete Notifications.

Required Permission: Node-UPDATE.

Node Management / test01

Node Details ← Back to list

Download Restart Shut down CREATE NEW

Details Configuration Parameters Runs Features Node Logs Notifications

Filter by text

Refresh Delete

Trigger ↓	Template ↑↓	Channel ↑↓
Stopping	node_entity	Skyup Email Chan...

Rows per page: 10 1-1 of 1

© 2021 IBA Group. All rights reserved. v2.1.0-37340/2.1-SNAPSHOT-37444

Filter by text

Filtering allows you to search the automation process by **Trigger, Template and Channel**.

Sorting

Ascending/descending sorting is allowed for the **Trigger, Template and Channel columns**.

Create a New Notification

To create a New Notification:

1. Click "**Create New**" button.
2. In the New Notification pop-up panel enter **Trigger, Channel, Template**.
3. Click **CREATE**.

Node Management / test01

Node Details ← Back to list

Download Restart Shut down CREATE NEW

Details Configuration Parameters Runs Features Node Logs Notifications

Filter by text

Refresh Delete

Trigger ↓	Template ↑↓	Channel ↑↓
Stopping	node_entity	Skyup Email Chan...

Rows per page: 10 1-1 of 1

CREATE

© 2021 IBA Group. All rights reserved. v2.1.0-37340/2.1-SNAPSHOT-37444

To create the Schedule Notifications, you need to be granted Node-UPDATE permission. See (v. 2.2) [Role Permissions](#).

Update Notifications

To **Update** an existing notification parameters, you need to:

- Click on the corresponding notification.
- Change one of the field values.

The screenshot shows the 'Node Details' page for a node named 'test01'. The 'Notifications' tab is active, displaying a table with one notification row. The notification has a 'Trigger' of 'Stopping', a 'Template' of 'node_entity', and a 'Channel' of 'Skyup Email Chan...'. A red arrow points to the 'UPDATE' button in the bottom right corner of the 'Edit Notification' dialog box.

- Click **Update**.

To update the Automation Process Notifications, you need to be granted Node-UPDATE permission. See (v. 2.2) [Role Permissions](#).

Delete Notifications

There 2 ways to **Delete** Notifications:

- **Press** control icon **Delete**.

The screenshot shows the 'Node Details' page for a node named 'test01'. The 'Notifications' tab is active, displaying a table with one notification row. The notification has a 'Trigger' of 'Stopping', a 'Template' of 'node_entity', and a 'Channel' of 'Skyup Email Chan...'. A red box highlights the 'Delete' icon in the rightmost column of the row.

- Choose the particular (or all) Notification and press icon **Delete**.

The screenshot shows the 'Node Management / test01' interface. The 'Node Details' page is active, with the 'Notifications' tab selected. The page includes a search filter, a 'Refresh' button, and a 'Delete' button (highlighted with a red box). A table lists notifications with columns for Trigger, Template, and Channel. The 'Down' notification is selected (checkbox checked, highlighted with a red box). The 'Delete' button is also highlighted with a red box. The footer shows '© 2021 IBA Group. All rights reserved. v2.1.0-37340/2.1-SNAPSHOT-37444'.

Trigger ↓	Template ↓↑	Channel ↓↑
<input type="checkbox"/> Stopping	node_entity	Skyup Email Chan...
<input checked="" type="checkbox"/> Down	SkyUp invoice pr...	Skyup Email Chan...

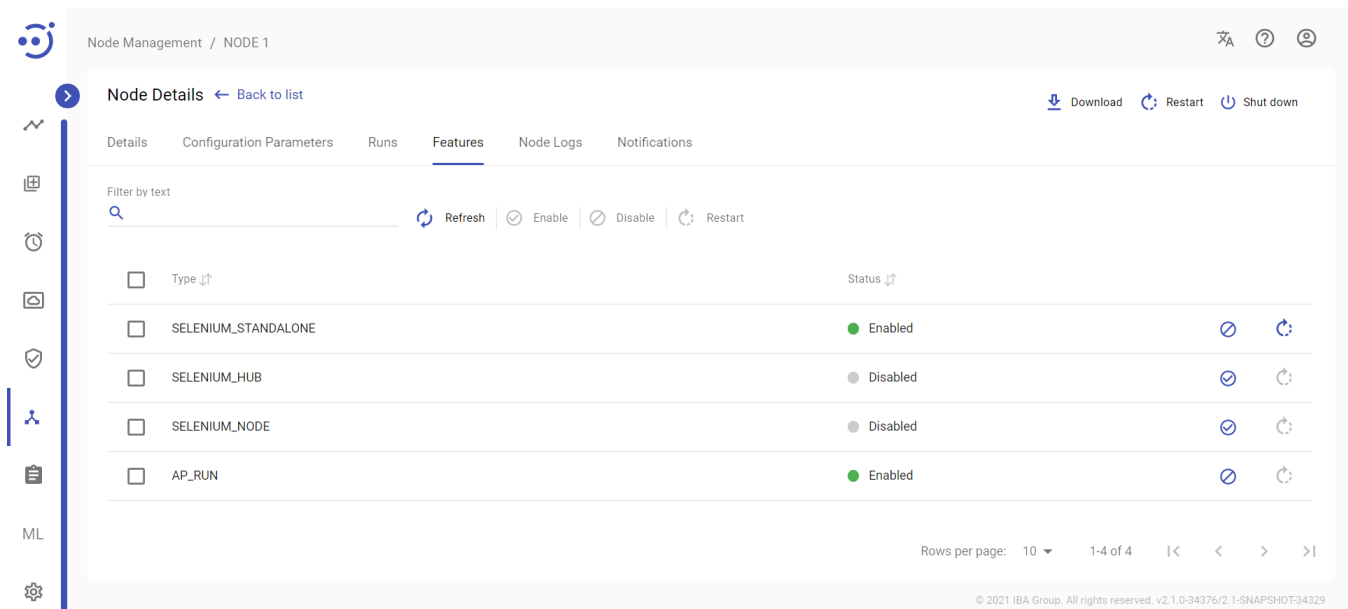
You need to be granted Node-UPDATE permission. See [\(v. 2.2\) Role Permissions](#).

(v. 2.2) Node Features

- Automation Process Run Feature
- Selenium Configuration
 - General Selenium Feature Configuration
 - Selenium Hub Feature
 - Selenium Node Feature
 - Selenium Standalone Feature
 - Driver Storage
- Feature Logs

The Node Features tab displays the list of system capabilities available for the specific node.

You can configure node features by clicking **Node Management Node Details Features**. Required Permissions: Node-READ (to view a node feature configuration), Node-UPDATE (to change a node feature configuration). See (v. 2.2) [Role Permissions](#).



Each node has the following list of default features:

- AP_RUN
- SELENMIUM_HUB
- SELENMIUM_NODE
- SELENMIUM_STANDALONE

The node features can receive two statuses: **Disabled/Enabled**. Those features that are enabled appear as tags at the Capabilities field at **Node Management Node Details Details**.

Node Management / NODE 1

Node Details ← Back to list

Download Restart Shut down UPGRADE VERSION

Details Configuration Parameters Runs Features Node Logs Notifications

General

Name *
NODE 1

Description

Working Directory
c:\easy_rpa\node_agent\node_01

Capabilities

JAVA X AP_RUN X SELENIUM X

Dedicated

Node Agent

Version 2.1-SNAPSHOT-34329

CPU 32

Total memory 2.43 GB

Free memory 1.79 GB

IP addresses 10.224.0.32

Features

AP_RUN

Status: Enabled
Running in dedicated AP run mode

SELENIUM_HUB

Status: Disabled

SELENIUM_NODE

Status: Disabled

SELENIUM_STANDALONE

Status: Enabled
Healthy: yes
Running (0) since 2021-04-27T11:40:05.394+03:00[Europe/Minsk]

UPDATE

© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

You can also observe the following information about the node features at the Details tab:

- Status
- Healthy
- Timestamp of run

Automation Process Run Feature

The AP_RUN feature is capable to run automation processes and is enabled by default.

It can be configured to run dedicated or non-dedicated automation processes. The configuration for **non-dedicated** automation processes:

Node Management / NODE 2

Node Details ← Back to list

Download Restart Shut down

Details Configuration Parameters Runs Features Node Logs Notifications

Filter by text

Refresh Enable Disable Restart

Type ↑	Status ↓		
<input type="checkbox"/> SELENIUM_STANDALONE	● Enabled	⊘	↻
<input type="checkbox"/> SELENIUM_HUB	● Disabled	⊘	↻
<input type="checkbox"/> SELENIUM_NODE	● Disabled	⊘	↻
<input type="checkbox"/> AP_RUN ←	● Enabled	⊘	↻

Rows per page: 10 1-4 of 4 |< < > >|

UPDATE

© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

AP_RUN X

VIEW FEATURE LOGS ↗

Feature Configuration

```

1 ^ {
2   "dedicated": false,
3   "capacity": 8
4 }

```

The configuration for **dedicated** automation processes: "dedicated": true.

AP_RUN

[VIEW FEATURE LOGS](#) ↗

Feature Configuration

```
1 ^ {  
2   "dedicated": true,  
3   "capacity": 8  
4 }
```

The capacity setting allows you to set up the quantity of different automation process tasks that can be run on the node at the same time.

⚠ If the AP_RUN feature is disabled, the node cannot run automation processes.

Selenium Configuration

Selenium Hub, Selenium node and Selenium standalone features make use of Selenium infrastructure and hence have many common settings.

You can manage configuration parameters for each feature in JSON format at the pop-up panel at the right by clicking on the corresponding row with the feature. The overview of the parameters see below

General Selenium Feature Configuration

The general configuration parameters for all features includes the following fields:

- `restartTimeout`: time in milliseconds to wait for the process to finish or restart
- `url`: the container that describes how the node fetches the file
 - `type`: the storage provider, possible values are `S3`, `URL`, `NEXUS`
 - `location`: the path to selenium server executable jar - relative if the type is `S3` or `NEXUS`, absolute if `URL`
- `file`: the name of selenium server jar file stored on node agent
- `port`: the port number on which selenium will be started

Selenium Hub Feature

The `SELENIUM_HUB` feature is capable to use the Selenium framework for automating web browser actions. The feature allows configuring a single machine (hub), that delegates requests to different machines (nodes).



[VIEW FEATURE LOGS](#) ↗

Feature Configuration

```
1 ^ {  
2   "restartTimeout": 10000,  
3 ^   "url": {  
4     "type": "S3",  
5     "location": "easyrpa/selenium/selenium-server-standalone-  
6       3.141.59.jar"  
7   },  
8   "file": "selenium-server-standalone-3.141.59.jar",  
9   "port": 4444  
}
```

The description of each parameter is given in the General Selenium Feature Configuration title above.

⚠ SELENIUM_HUB and SELENIUM_NODE features work in conjunction and both must be Enabled for setting up the Selenium grid.

Selenium Node Feature

The SELENIUM_NODE feature is capable to use the Selenium framework for automating web browser actions. SELENIUM_NODE feature works in conjunction with SELENIUM_HUB.

The feature allows configuring web drivers that are supported for automation processes execution.

[VIEW FEATURE LOGS](#)

Feature Configuration

```

1 ^ {
2   "restartTimeout": 10000,
3   "url": {
4     "type": "S3",
5     "location": "easyrpa/selenium/selenium-server-standalone-3.141.59.jar"
6   },
7   "file": "selenium-server-standalone-3.141.59.jar",
8   "drivers": [
9     {
10    "url": {
11      "type": "S3",
12      "location": "easyrpa/selenium/drivers/chromedriver.exe"
13    },
14    "file": "chromedriver.exe",
15    "seleniumCapabilities": {
16      "browserName": "chrome",
17      "maxInstances": "3"
18    },
19    "driverName": "chrome"
20  },
21  {
22    "url": {
23      "type": "S3",
24      "location": "easyrpa/selenium/drivers/geckodriver.exe"
25    },
26    "file": "geckodriver.exe",
27    "seleniumCapabilities": {
28      "browserName": "firefox",
29      "maxInstances": "3"
30    },
31    "driverName": "gecko"
32  },
33  {
34    "url": {
35      "type": "S3",
36      "location": "easyrpa/selenium/drivers/msedgedriver.exe"
37    },
38    "file": "msedgedriver.exe",
39    "seleniumCapabilities": {
40      "browserName": "MicrosoftEdge",
41      "maxInstances": "3"
42    },
43    "driverName": "edge"
44  },
45  {
46    "url": {
47      "type": "S3",
48      "location": "easyrpa/selenium/drivers/IEDriverServer.exe"
49    },
50    "file": "IEDriverServer.exe",
51    "seleniumCapabilities": {
52      "browserName": "internet explorer",
53      "maxInstances": "3",
54      "version": "11"
55    },
56    "driverName": "ie"
57  },
58  {
59    "url": {
60      "type": "S3",
61      "location": "easyrpa/selenium/drivers/operadriver.exe"
62    },
63    "file": "operadriver.exe",
64    "seleniumCapabilities": {
65      "browserName": "operablink",
66      "maxInstances": "3"
67    },
68    "driverName": "opera"
69  }
70 ],
71 "port": 4401,
72 "hub": "http://localhost:4444/grid/register"

```

UPDATE

The description of some parameters is given in the General Selenium Feature Configuration title above. Along with the selenium capabilities here are the parameters of the web drivers:

Root section

- `drivers`: the list of web drivers supported by this node
- `hub`: the URL at which the selenium hub registers the nodes, for example <http://localhost:4444/grid/register>

List of drivers:

- `file`: the name of web driver file as it will be stored on node agent
- `driverName`: the name of system property corresponding to this web driver, passed as `-Dwebdriver.<driverName>.driver=...`
- `seleniumCapabilities`: the list of key-value pairs corresponding to selenium capabilities, passed as `-browser "key1=value1, key2=value2..."`

Selenium Capabilities section:

- `browserName`: supported values are `chrome`, `firefox`, `MicrosoftEdge`, `internet explorer`, `operablink`
- `maxInstances`: the maximum number of browser instances to run at the same time
- `version`: the browser version, or the empty string if unknown
- `platform`: the platform that the browser should run on, currently support is only guaranteed for `WINDOWS`

Selenium Standalone Feature

The `SELENIUM_STANDALONE` feature is capable to use the Selenium framework for automating web browser actions. The feature works independently of the `SELENIUM_HUB` and represents the hub + the only node on which automation processes can be executed.

 It is advised to use the `SELENIUM_STANDALONE` feature for automation processes that imply a low load with a limited number of sessions.

[VIEW FEATURE LOGS](#)

Feature Configuration

```
1 ^ {
2   "restartTimeout": 10000,
3 ^  "url": {
4     "type": "S3",
5     "location": "easyrpa/selenium/selenium-server-standalone-3.141.59.jar"
6   },
7   "file": "selenium-server-standalone-3.141.59.jar",
8 ^  "drivers": [
9 ^    {
10 ^     "url": {
11       "type": "S3",
12       "location": "easyrpa/selenium/drivers/chromedriver.exe"
13     },
14     "file": "chromedriver.exe",
15 ^     "seleniumCapabilities": {
16       "browserName": "chrome",
17       "maxInstances": "3"
18     },
19     "driverName": "chrome"
20   },
21 ^   {
22 ^     "url": {
23       "type": "S3",
24       "location": "easyrpa/selenium/drivers/geckodriver.exe"
25     },
26     "file": "geckodriver.exe",
27 ^     "seleniumCapabilities": {
28       "browserName": "firefox",
29       "maxInstances": "3"
30     },
31     "driverName": "gecko"
32   },
33 ^   {
34 ^     "url": {
35       "type": "S3",
36       "location": "easyrpa/selenium/drivers/msedgedriver.exe"
37     },
38     "file": "msedgedriver.exe",
39 ^     "seleniumCapabilities": {
40       "browserName": "MicrosoftEdge",
41       "maxInstances": "3"
42     },
43     "driverName": "edge"
44   },
45 ^   {
46 ^     "url": {
47       "type": "S3",
48       "location": "easyrpa/selenium/drivers/IEDriverServer.exe"
49     },
50     "file": "IEDriverServer.exe",
51 ^     "seleniumCapabilities": {
52       "browserName": "internet explorer",
53       "maxInstances": "3",
54       "version": "11"
55     },
56     "driverName": "ie"
57   },
58 ^   {
59 ^     "url": {
60       "type": "S3",
61       "location": "easyrpa/selenium/drivers/operadriver.exe"
62     },
63     "file": "operadriver.exe",
64 ^     "seleniumCapabilities": {
65       "browserName": "operablink",
66       "maxInstances": "3"
67     },
68     "driverName": "opera"
69   }
70 ],
71 "port": 4404
72 }
```

The description of some parameters is given in the General Selenium Feature Configuration title above. Along with the selenium capabilities here are the parameters of the web drivers:

Root section

- `drivers`: the list of web drivers supported by this node

List of drivers:

- `file`: the name of web driver file as it will be stored on node agent
- `driverName`: the name of system property corresponding to this web driver, passed as `-Dwebdriver.<driverName>.driver=...`
- `seleniumCapabilities`: the list of key-value pairs corresponding to selenium capabilities, passed as `-browser "key1=value1, key2=value2..."`

Selenium Capabilities section:

- `browserName`: supported values are `chrome`, `firefox`, `MicrosoftEdge`, `internet explorer`, `operablink`
- `maxInstances`: the maximum number of browser instances to run at the same time
- `version`: the browser version, or the empty string if unknown
- `platform`: the platform that the browser should run on, currently support is only guaranteed for `WINDOWS`

Driver Storage

When the selenium node feature is being enabled, the node agent retrieves the web drivers in the following steps:

1. analyzing driver list from selenium feature configuration
2. downloading each driver from `url` section
3. saving downloaded drivers with the name taken from `file` field to node working directory. It can be the default folder like `%Temp%\NODE_NAME\` or custom folder that you specified on the Node Details tab.

Typical Node cache content:

```
29.12.2020 13:55 <DIR>      .
29.12.2020 13:55 <DIR>      ..
27.12.2020 15:54 <DIR>      ap-run
24.12.2020 13:57      9 721 344 chromedriver.exe
24.12.2020 13:57      2 980 048 geckodriver.exe
27.12.2020 18:03      3 420 672 IEDriverServer.exe
24.12.2020 13:57      9 292 184 msedgedriver.exe
24.12.2020 18:18 <DIR>      nexus-repo
29.12.2020 13:55      0 node.lock
27.12.2020 17:54     10 936 344 operadriver.exe
24.12.2020 13:57     10 649 948 selenium-server-standalone-3.141.59.jar
```

Driver version can be checked by running `--version` command from the node working directory.

```
>chromedriver.exe --version
ChromeDriver 84.0.4147.30 (48b3e868b4cc0aa7e8149519690b6f6949e110a8-refs/branch-heads/4147@{#310})
```

Feature Logs

Each node feature has logs that show how the feature is used.

You can access feature logs by clicking **View Feature Logs** at the corresponding node feature. To access the Node feature logs, you need to be granted Node-READ permission. See [Role Permissions](#) .

Node Management / NODE 1

Node Details ← Back to list

Download Restart Shut down

Details Configuration Parameters Runs **Features** Node Logs Notifications

Filter by text

Refresh Enable Disable Restart

Type	Status	Actions
SELENIUM_STANDALONE	Enabled	Refresh Restart
SELENIUM_HUB	Disabled	Refresh Restart
SELENIUM_NODE	Disabled	Refresh Restart
AP_RUN	Enabled	Refresh Restart

Rows per page: 10 1-4 of 4

SELENIUM_STANDALONE

VIEW FEATURE LOGS

Feature Configuration

```

1 {
2   "restartTimeout": 10000,
3   "url": {
4     "type": "S3",
5     "location": "easyrpa/selenium/selenium-server-standalone-3.141.59.jar"
6   },
7   "file": "selenium-server-standalone-3.141.59.jar",
8   "drivers": [
9     {
10    "url": {
11      "type": "S3",
12      "location": "easyrpa/selenium/drivers/chromedriver.exe"
13    },
14    "file": "chromedriver.exe",
15    "seleniumCapabilities": {
16      "browserName": "chrome",
17      "maxInstances": "3"
18    },
19    "driverName": "chrome"
20  }
21 ]

```

UPDATE

© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

Control icons

- Refresh - to pull the latest logs from the server.
- Autorefresh checkbox - to turn on/off an automatic refresh of logs.

Node Management / NODE 1

Node Details ← Back to list

Download Restart Shut down

Details Configuration Parameters Runs Features Node Logs **SELENIUM_STANDALONE logs** Notifications

Search by text

Refresh Autorefresh

Filter by severity ALL View columns timestamp, severity Sort by timestamp ↑

```

[2021-04-27 14:19:21.206] [WARN] }
[2021-04-27 14:19:21.206] [WARN] }
[2021-04-27 14:19:21.206] [WARN] }
[2021-04-27 14:19:21.269] [WARN] Please see https://chromedriver.chromium.org/security-considerations for suggestions on keeping ChromeDriver safe.
[2021-04-27 14:19:21.269] [WARN] Only local connections are allowed.
[2021-04-27 14:19:21.269] [WARN] Starting ChromeDriver 89.0.4389.23 (61b08ee2c50024bab004e48d2b1b083cddbac579-refs/branch-heads/4389@#294) on port 21548
[2021-04-27 14:19:21.284] [WARN] ChromeDriver was started successfully.

```

Search by text

You can search for a particular log by its text. The logs found are highlighted in yellow.

Filter by severity

Filtering allows you to choose the level of severity of the displayed logs from the dropdown menu. The available options are as follows:

Node Management / NODE 1

Node Details ← Back to list

Download Restart Shut down

Details Configuration Parameters Runs Features Node Logs **SELENIUM_STANDALONE logs** Notifications

Search by text

Refresh Autorefresh

Filter by severity ALL View columns timestamp, severity Sort by timestamp

ALL TRACE DEBUG INFO WARN ERROR

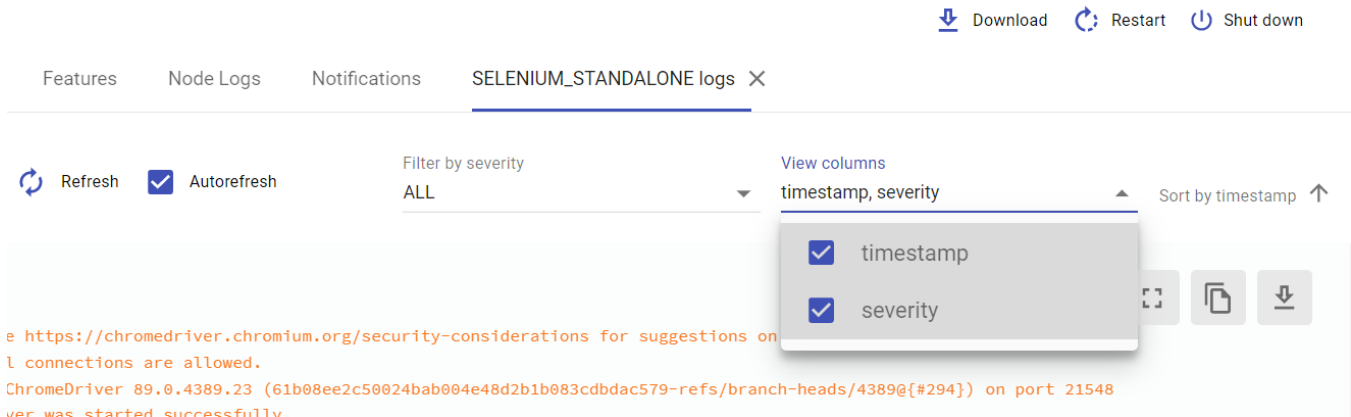
```

[2021-04-27 14:19:21.269] [WARN] Starting ChromeDriver 89.0.4389.23 (61b08ee2c50024bab004e48d2b1b083cddbac579-refs/branch-heads/4389@#294) on port 21548
[2021-04-27 14:19:21.284] [WARN] ChromeDriver was started successfully.
[161952362.314] [WARNING]: This version of ChromeDriver has not been tested on this version of Chrome.
[2021-04-27 14:19:22.347] [WARN] 14:19:22.347 INFO [ProtocolHandshake.createSession] - Detected
[2021-04-27 14:19:22.349] [WARN] 14:19:22.349 INFO [RemoteSessionFactory.lambda$performHandshake$0] - Detected
[2021-04-27 14:22:21.050] [WARN] 14:22:21.050 INFO [ActiveSessionFactory.lambda$apply$11] - Mat
[2021-04-27 14:22:21.050] [WARN] }
[2021-04-27 14:22:21.050] [WARN] }
[2021-04-27 14:22:21.050] [WARN] "extensions": [
[2021-04-27 14:22:21.050] [WARN] ],
[2021-04-27 14:22:21.050] [WARN] "args": [
[2021-04-27 14:22:21.050] [WARN] "goog:chromeOptions": {

```

View columns

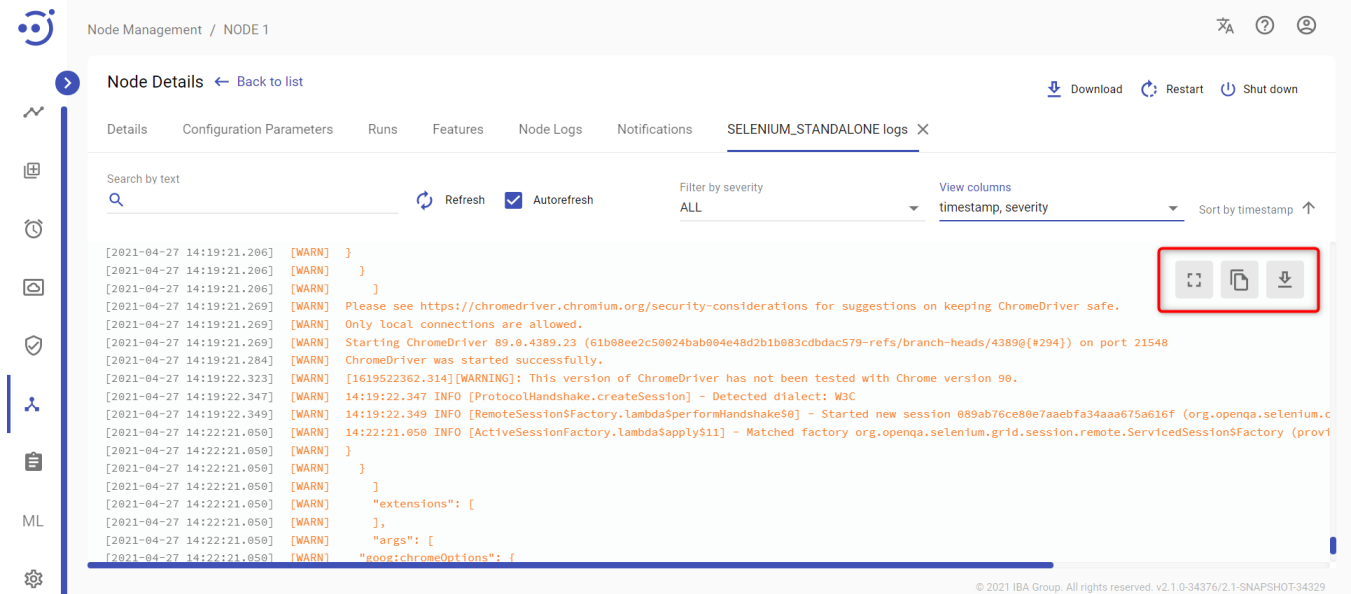
You can add or remove the columns timestamp/severity from the event log view.



Sort by timestamp

Ascending/descending logs sorting by the timestamp is allowed.

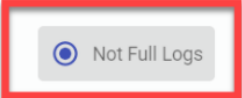
In the upper-right corner of the logs window there are buttons for opening logs in the full browser window, copy logs to the clipboard and download a .txt file with logs:



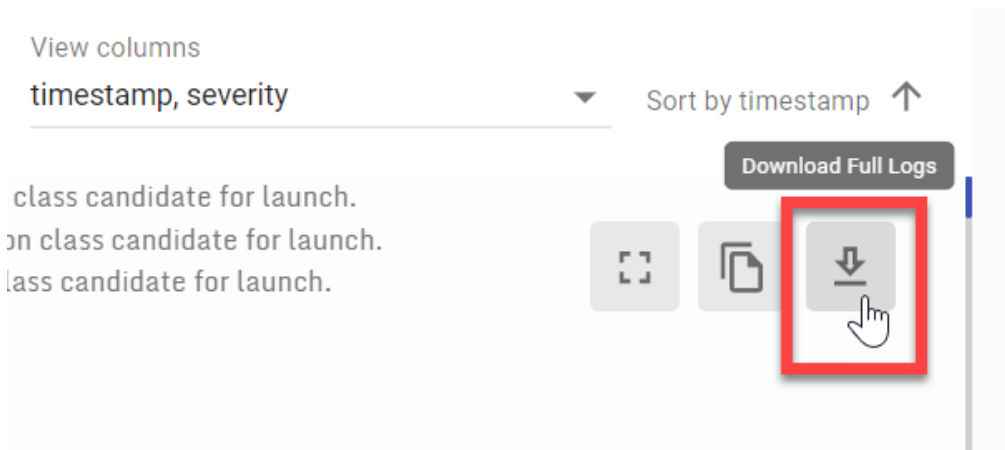
"Not Full Logs" indicator appears at the bottom right corner when the log becomes too long for one page:

```
pa.engine.boot.configuration.DevelopmentConfigurationModule module configuration class candidate for launch.
pa.engine.boot.configuration.DedicatedNodeConfigurationModule module configuration class candidate for launch.
pa.engine.boot.configuration.StandaloneConfigurationModule module configuration class candidate for launch.
URL to service:jmx:rmi:///jndi/rmi://:31037/jmxrmi
eu.ibagroup.easyrpa.engine.service.wire.InputOutputExecutionAspect
eu.ibagroup.easyrpa.engine.rpa.driver.DriverExecutionAspect
: 63e111ec-5023-4be5-8fa9-5f308748cb91
ad by SELENIUM_STANDALONE feature.
-a1473206232c working directory is c:\easy_rpa\node_agent\node_03\ap-run\26244766-d021-45c1-b851-e77c8144f785-e0b63a0d-2f55-4f6a-ba3a-885a620
ent Processor, downloading script on node NODE 3
.35/nexus/repository/easyrpa-group/eu/ibagroup/samples/ap/easy-rpa-ie-ap/2.0-SNAPSHOT/maven-metadata.xml [346 B at 4.3 KB/sec)
ile.encoding=UTF-8, -Dlog.appenders=ELASTIC-AP, -DRUN_UUID=26244766-d021-45c1-b851-e77c8144f785, -Delastic.host=https://elastic-node:admin@10

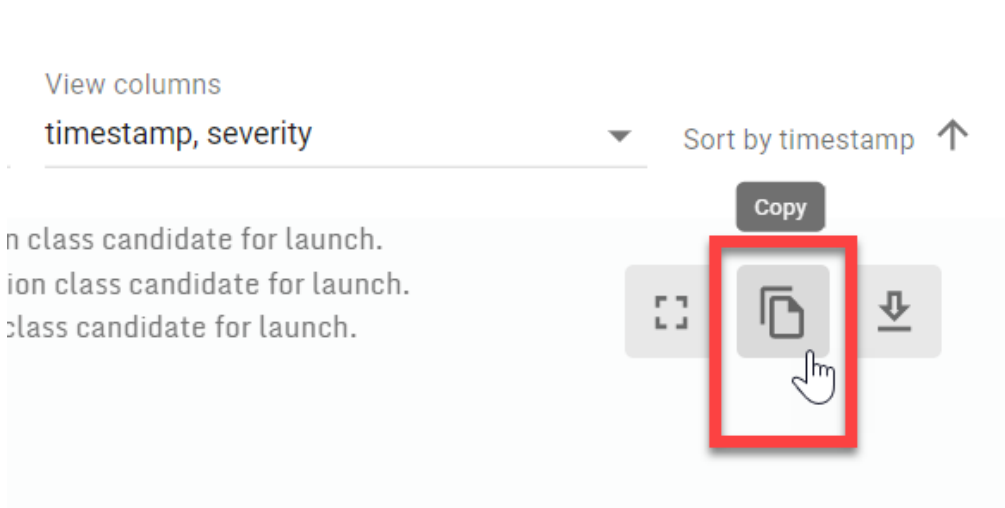
351-e77c8144f785,b6e372ce-b9e6-4dc6-91a6-fd07a029fba0] completed with OK
nfigurationModule to run, using profile node.
n port ...
ner:name=runner bean.
rpa.engine.boot.configuration.NodeConfigurationModule@291b4bf5]
```



To download full logs use the Download button:



To copy the displayed logs only use the Copy button:



(v. 2.2) WebDriver Version Update

This section provides information about the best practices for updating the web driver.

- [Semi-automatic driver update method](#)
- [Manual driver update method](#)
- [Obtaining right web driver version](#)
- [Common issues and solutions](#)

Each web driver has a version corresponding to a particular browser version. Therefore, if the browser receives the update automatically (and the web driver - does not), a version mismatch exception may occur.

For example, automation processes using the Chrome browser may encounter the following exception:

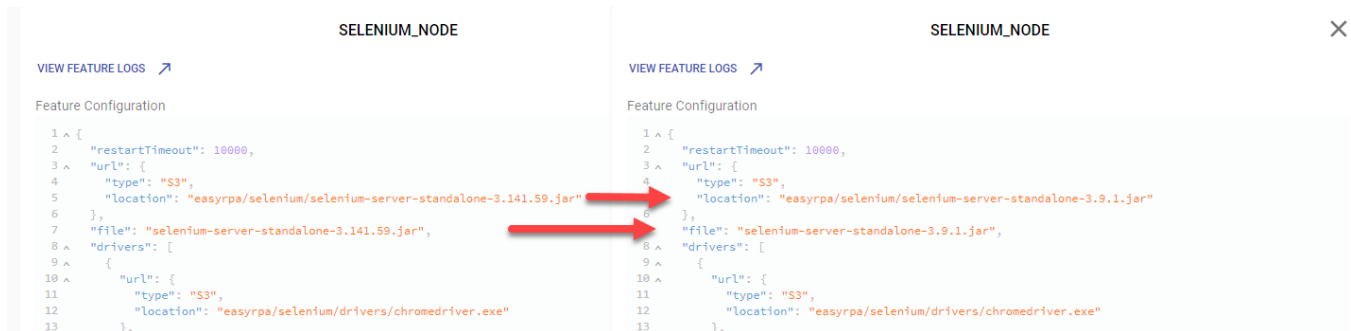
```
SessionNotCreatedException: session not created: This version of ChromeDriver only supports Chrome version 84
```

Since the web driver is tied to the node environment, you need to identify the node on which the automation process was running to fix the exception.

Semi-automatic driver update method

The easiest way to update the web-drivers is to put a new driver's version in the data storage (see the `url` section in the Node Details Features selenium feature parameters at the right pop-up panel). New drivers will be automatically updated on the node after the feature or the node is restarted.

If the driver contains a version in its name, you also need to specify the `file` field.



Manual driver update method

To update drivers manually, you need to download the appropriate driver version and replace it in the node's working directory. However, if there is a recently added file in the data storage, the driver will be updated when the feature or node is restarted.

How to Update the Driver Version

There are two possible ways to identify the node on which the automation process is running for the purpose :

1. Check the **automation process Event Log**.
2. Check the **Node Logs**.

How to check the Node Logs

- Open the automation process run history.
- Select the failed task.
- Click the **View Node Log**.

The screenshot shows the 'Automation Processes' interface. On the left, a workflow diagram displays a node labeled 'JNLP/WebStar...' with an arrow pointing to a node labeled 'Do Input Veri...'. The 'Do Input Veri...' node is highlighted with a red box. On the right, a panel titled 'Do Input Verification' is open, showing 'View Node Log' with a red box around it. Below this, the 'Task Input JSON' and 'Task Output JSON' are displayed as code blocks.

- The corresponding Node Logs are opened.

The screenshot shows the 'Node Management' interface. The 'Node Management' tab is selected, and 'NODE 1' is highlighted with a red box. Below, the 'Node Details' tab is open, and the 'Node Logs' sub-tab is selected. The logs are displayed in a table with columns for timestamp, severity, and message. The logs show various system messages, including class loading, configuration, and process execution details.

- Search for the working directory by the node name. All drivers, as well as automation process dependencies, are stored in the working directory.

⚠ This can be the default folder, such as %Temp%\NODE NAME\ or a custom folder specified on the Node Details tab.

Node Management / NODE 1

Node Details ← Back to list

Download Restart Shut down

Details Configuration Parameters Runs Features **Node Logs** Notifications

Search by text working dir Refresh Autorefresh Filter by severity ALL View columns timestamp, severity Sort by timestamp ↑

```

[2021-04-28 14:57:34.769] [WARN] at eu.ibagroup.easyrpa.engine.task.ap.AptExecutionTask.execute(AptExecutionTask.java:26)
[2021-04-28 14:57:34.769] [WARN] at eu.ibagroup.easyrpa.engine.apFlow.ApModule.execute(ApModule.java:56)
[2021-04-28 14:57:34.769] [WARN] at eu.ibagroup.easyrpa.ap.JnlpAp.run(JnlpAp.java:14)
[2021-04-28 14:57:34.769] [WARN] at java.util.concurrent.CompletableFuture.get(CompletableFuture.java:1908)
[2021-04-28 14:57:34.769] [WARN] at java.util.concurrent.CompletableFuture.reportGet(CompletableFuture.java:357)
[2021-04-28 14:57:34.769] [WARN] java.util.concurrent.ExecutionException: eu.ibagroup.easyrpa.engine.exception.EasyRpaException: E1000-4451-521 - Unexpected fatal error
[2021-04-28 14:57:34.769] [WARN] eu.ibagroup.easyrpa.engine.exception.EasyRpaException: E1000-4451-521 - Unexpected fatal error
[2021-04-28 14:57:35.706] [INFO] Canceled process 14424 executed with exitCode 2
[2021-04-28 14:57:35.706] [INFO] Process 14424 executed with exitCode 2
[2021-04-28 15:00:40.457] [INFO] Received Run: ap JNLP/WebStart Demo, runUuid beecf50f-0602-4a62-b8c5-d79bbfbd853, taskUuid null, downloading script on node NODE 1
[2021-04-28 15:00:40.463] [INFO] AP 7bfdbf97-2e9b-4ffb-a9e6-e7f18fc01f3e working directory is c:\easy_rpa\node_agent\node_01\ap-run\beecf50f-0602-4a62-b8c5-d79bbfbd853-null
[2021-04-28 15:00:40.472] [WARN] RunConfiguration was changed by SELENIUM_STANDALONE feature.
[2021-04-28 15:00:40.769] [INFO] Downloaded: https://.../nexus/repository/easyrpa-group/eu/ibagroup/samples/ap/easy-rpa-jnlp-ap/2.1-SNAPSHOT/maven-metadata.xml (348 B at
[2021-04-28 15:00:41.691] [INFO] Executing command [java, -Dfile.encoding=UTF-8, -Dlog.appenders=ELASTIC-AP, -DRUN_UUID=beecf50f-0602-4a62-b8c5-d79bbfbd853, -DTASK_UUID=null, -D
[2021-04-28 15:00:41.738] [INFO] Started process with pid 28916
[2021-04-28 15:00:43.160] [INFO] Scanning class path to find ConfigurationModule to run, using profile dedicated_node.
[2021-04-28 15:00:43.175] [INFO] Create an RMI connector server
[2021-04-28 15:00:43.175] [INFO] Create RMI registry on port 15416
  
```

Not Full Logs

© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

Working directory path can also be found at the **Node Details** tab:

Node Management / NODE 1

Node Details ← Back to list

Download Restart Shut down UPGRADE VERSION

Details Configuration Parameters Runs Features **Node Logs** Notifications

General	Node Agent	Features
Name* NODE 1	Version 2.1-SNAPSHOT-34329	AP_RUN Status: Enabled Running in dedicated AP run mode
Description	CPU 32	SELENIUM_HUB Status: Disabled
Working Directory c:\easy_rpa\node_agent\node_01	Total memory 2.43 GB	SELENIUM_NODE Status: Disabled
Capabilities JAVA X AP_RUN X SELENIUM X	Free memory 1.25 GB	SELENIUM_STANDALONE Status: Enabled Healthy: yes Running (0) since 2021-04-27T11:40:05.394+03:00[Europe/Minsk]
Dedicated	IP addresses	

UPDATE

© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

- To identify the Node host, go to the **Node Details** tab and check its IP address.

Node Management / NODE 1

Node Details ← Back to list

Download Restart Shut down UPGRADE VERSION

Details Configuration Parameters Runs Features Node Logs Notifications

General

Name *
NODE 1

Description

Working Directory
c:\easy_rpa\node_agent\node_01

Capabilities

JAVA X AP_RUN X
SELENIUM X

Dedicated

Node Agent

Version 2.1-SNAPSHOT-34329
CPU 32
Total memory 2.43 GB
Free memory 1.25 GB
IP addresses

Features

AP_RUN
Status: Enabled
Running in dedicated AP run mode

SELENIUM_HUB
Status: Disabled

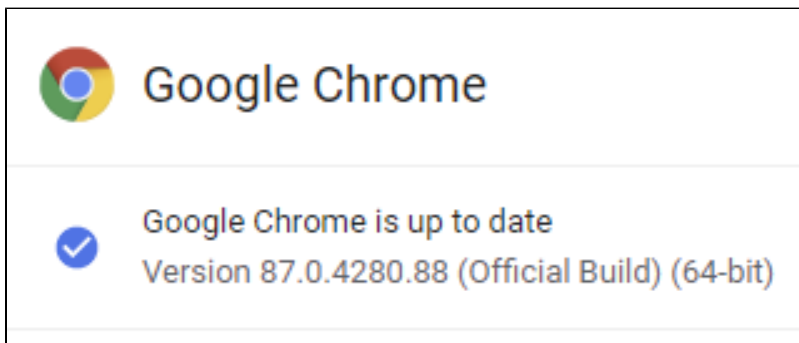
SELENIUM_NODE
Status: Disabled

SELENIUM_STANDALONE
Status: Enabled
Healthy: yes
Running (0) since 2021-04-27T11:40:05.394+03:00[Europe/Minsk]

UPDATE

© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

- Connect to the desired machine, open the Chrome browser and check the version through the *Help About* menu.



- To fix the exception, you should replace the corresponding web driver file stored on the node with the required version.

⚠ You can check the driver version by running the `--version` command from the node's working directory.

```
>chromedriver.exe --version
ChromeDriver 84.0.4147.30 (48b3e868b4cc0aa7e8149519690b6f6949e110a8-refs/branch-heads/4147@{#310})
```

Obtaining right web driver version

For the web-driver to run smoothly, the following conditions must be met:

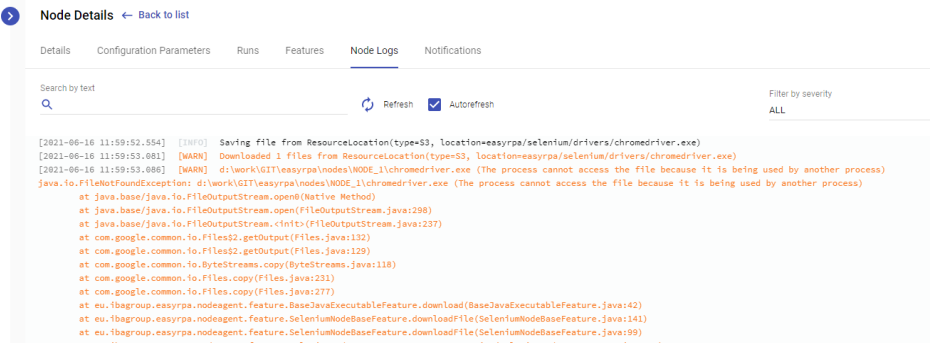
- The major driver version must be equal to the major browser version. For example, the Chrome web-driver v. **87.0.4280.88** is suitable for the Chrome browser v. **87.0.4280.88**.
- The platform architecture must match: you cannot run Linux driver on Windows.

The latest drivers for each browser can be found on the respective pages.

- Chrome: <https://sites.google.com/a/chromium.org/chromedriver/downloads>.
- Firefox: <https://github.com/mozilla/geckodriver/releases>.
- Edge: <https://developer.microsoft.com/en-us/microsoft-edge/tools/webdriver/#downloads>.
- Internet Explorer 11: <https://selenium-release.storage.googleapis.com/index.html>.
- Opera: <https://github.com/operasoftware/operachromiumdriver/releases>.

Links are relevant at the time of writing (March 2021).

Common issues and solutions

Issue	Solution
<p>"The action could not be completed because the folder or file is open in another program." when replacing a driver file.</p> <p><code>--no-sandbox</code></p> <p>parameter selenium server do not close child chromedriver.exe process.</p> 	<p>The driver file can only be replaced if it is not currently being used. Check Windows Task Manager to find and stop running instances of the required web driver. You can also use the following command to kill all opened chromedriver.exe:</p> <pre>taskkill /im chromedriver.exe /f</pre>
<p>"Cannot find firefox binary in PATH" when running the automation process in Firefox.</p>	<p>Firefox.exe must be placed in the PATH for geckodriver to work correctly.</p>

(v. 2.2) Machine Learning

Machine Learning module is designed to enable user to perform a complete cycle of operations from document set collection, applying OCR conversion, tagging documents in Workspace, preparing training data sets to train machine learning models.

This section contains the following modules:

- [\(v. 2.2\) Document Sets](#)
 - [\(v. 2.2\) Details](#)
 - [\(v. 2.2\) Documents](#)
 - [\(v. 2.2\) Runs](#)
- [\(v. 2.2\) Models](#)

Document Sets module allows to create and view document sets used to train ML models along with their names, descriptions, creation /update time as well as data type and automation process used. Here users can edit document sets, populate them with necessary documents, assign correct labels and mark entities, prepare training data, and train models.

Models module provides users with a single point for ML models management: view all the models registered in the system, train new models and delete existing ones, export and import models.

(v. 2.2) Document Sets

- [Document Sets Overview](#)
- [Manage Document Sets](#)
 - [Create Document Sets](#)
 - [Edit Document Sets](#)
 - [Delete Document Sets](#)
 - [Train Model](#)

Document Sets module allows to create and view document sets used to train ML models along with their names, descriptions, creation /update time as well as data type and automation process used. Here users can edit document sets, populate them with necessary documents, assign correct labels and mark entities, prepare training data, and train models.

The system also provides ability to import document sets as a single package with all the data, labels, and models included. Document Sets along with their content can also be deleted.

You can access the module by clicking **Machine Learning Document Sets**. Required Permission: DocumentSet-READ. See [Role Permissions](#) .

Name	Document Type	Description	Last Update	Control Icons
test CL	CL		17.09.2021 12:00	[Train Model] [Edit] [Delete]
test IE	IE		17.09.2021 11:57	[Train Model] [Edit] [Delete]
test	test		17.09.2021 10:54	[Train Model] [Edit] [Delete]
	IE		17.09.2021 16:48	[Train Model] [Edit] [Delete]

Document Sets Overview

Columns Description

- **Name** - the Document set name. By clicking on the document set name you can see the documents included into the document set.
- **Document Type** - the document type defines how the documents for Human Task are displayed for tagging, which output fields should be extracted during the tagging and Machine Learning training.
- **Document Processor** - the name of an automation process that controls life-cycle of a document set and includes preparation steps to display documents in the Human Task. By clicking on the Automation Process you can see the process runs.
- **Description** - a short description of the Document Set.
- **Last Update** - the last date and time when the documents were changed.

Control icons

- **Refresh** - to pull the last updates from the server.
- **Train Model** - to train an ML model on documents contained in the Document Set. Please note, it's required to prepare a training set first. Required Permission: MIModel-CREATE.
- **Delete** - to delete the Document Set. Required Permission: DocumentSet-DELETE.

Filter by text

Filtering allows you to search the Document Sets by Name, Document Type, Document Processor, Description.

Sorting

Ascending/descending sorting is allowed for Name, Document Type, Document Processor, Last Update columns.

The screenshot shows the 'Document Sets' management interface. At the top right, a blue 'CREATE NEW' button is highlighted with a red rectangular box. Below the header, there is a search bar labeled 'Filter by text' with a magnifying glass icon, and 'Refresh' and 'Delete' buttons. The main content is a table with the following columns: Name, Document Type, Description, and Last Update. The table contains five rows of data. At the bottom right, there is a pagination control showing 'Rows per page: 10' and '1-10 of 11' items, along with navigation arrows. The footer contains the copyright information: '© 2021 IBA Group. All rights reserved. v2.2.0-41509/2.2.0-SNAPSHOT-41535'.

<input type="checkbox"/>	Name ↑↓	Document Type ↑↓	Description	Last Update ↑↓			
<input type="checkbox"/>	IN test	IE		20.09.2021 12:10			
<input type="checkbox"/>	test CL	CL		17.09.2021 12:00			
<input type="checkbox"/>	test IE	IE		17.09.2021 11:57			
<input type="checkbox"/>	test	test		17.09.2021 10:54			

Manage Document Sets

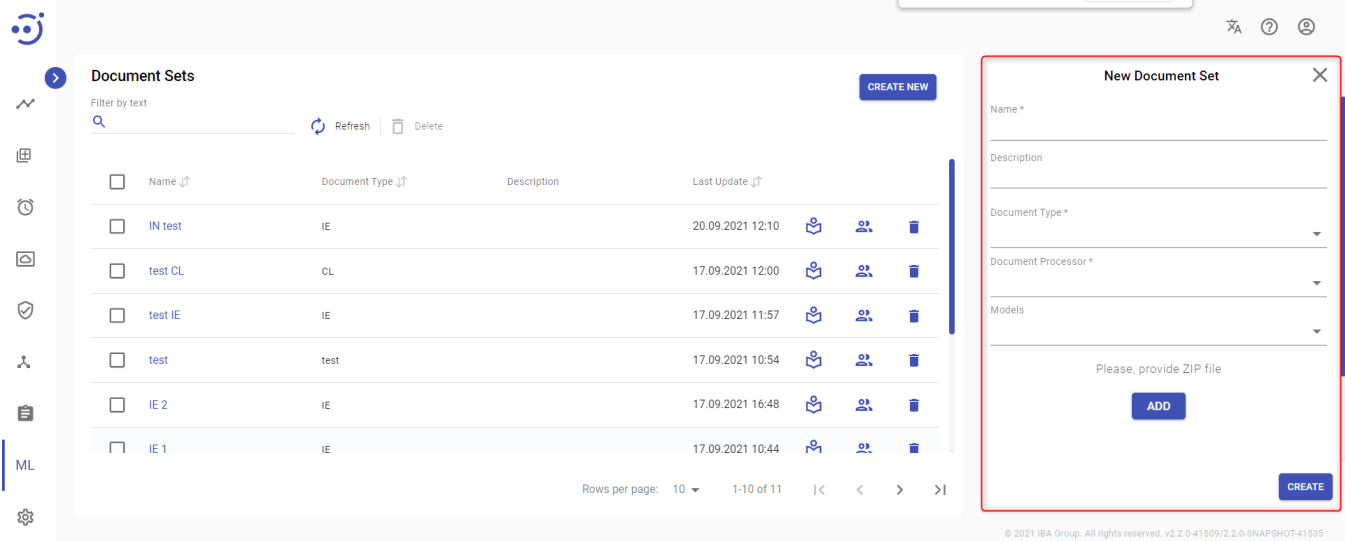
Create Document Sets

To create a new Document Set, you need to:

- Navigate to the **Document Sets**. Required Permissions to get there: AutomationProcess-READ and DocumentType-READ.
- Click **CREATE NEW** button. Required Permission: DocumentSet-CREATE. See [\(v. 2.2\) Role Permissions](#).

This screenshot is identical to the one above, showing the 'Document Sets' management interface with the 'CREATE NEW' button highlighted in a red box. It includes the search bar, table of document sets, pagination, and footer information.

- The **New Document Set** panel is displayed on the right.



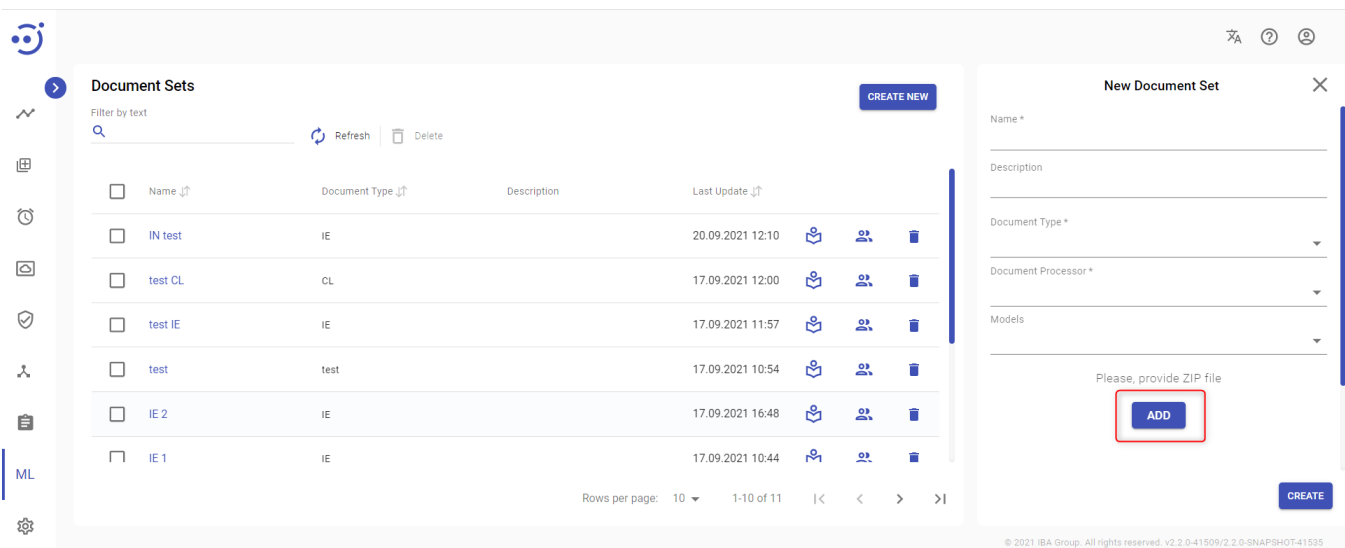
- Enter a document set **Name**.
- Optionally enter a short document set **Description**.
- Select a **Document Type** from the drop-down list.

The necessary document type should be created prior to creating a document set. A document type defines how the documents are displayed on Human Task for tagging, which output fields should be extracted during the tagging and Machine Learning training. If the required document type is missing from the drop-down list range navigate to **Administration Human Task Types Human Task Type Details Document Types** to create a new document type. For more details see [Create a new Document Type](#).

- Select a **Document Processor** from the drop-down list.

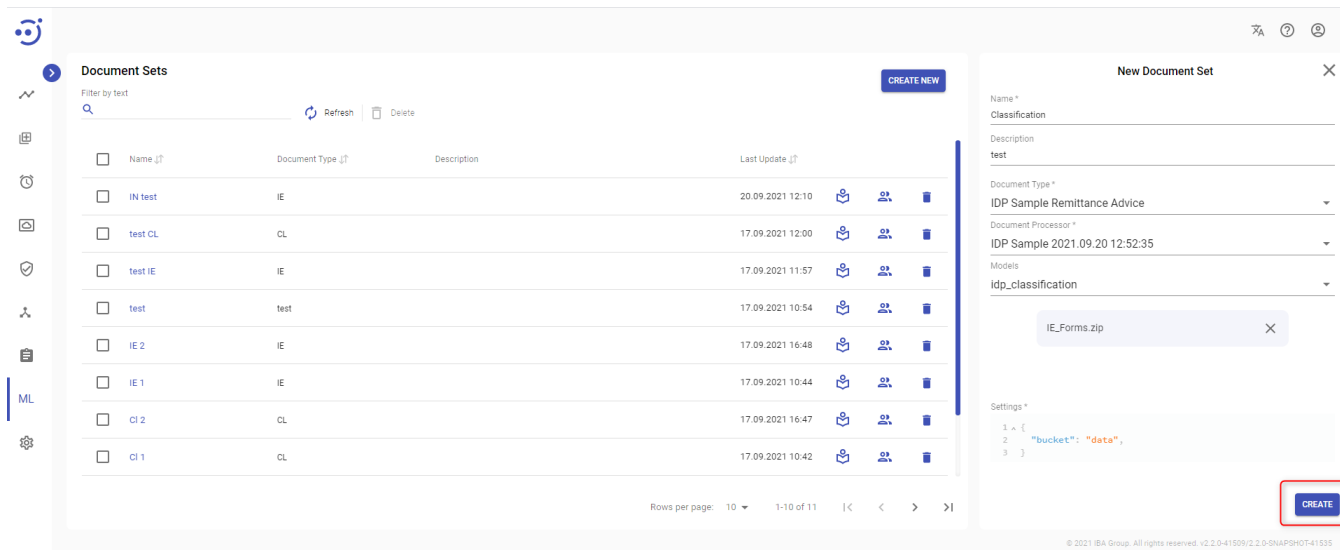
A document processor is an automation process that controls the document set workflow and includes preparation steps to display documents on the Human Task. The necessary document processor should be created prior to creating a document set. If the required document processor is missing from the drop-down list range navigate to **Automation Processes** to create a new document processor. For more details see [Create a new Automation Process](#).

- Optionally select a ML **model** from the drop-down list to process the document set .
- Click **ADD** button to upload a .zip file with documents for a new document set. A file explorer window is displayed. Select a .zip file to be uploaded into the document set.



- Provide OCR configuration including Storage bucket name, Tesseract options, Image Magick and HocrFixWords options in the **Settings** field below Add button.
 - document_bucket – name of Storage bucket where OCR results will be saved;
 - tesseractOptions - Tesseract OCR command line options. Please see the external documentation [Tesseract Command Line Usage](#).

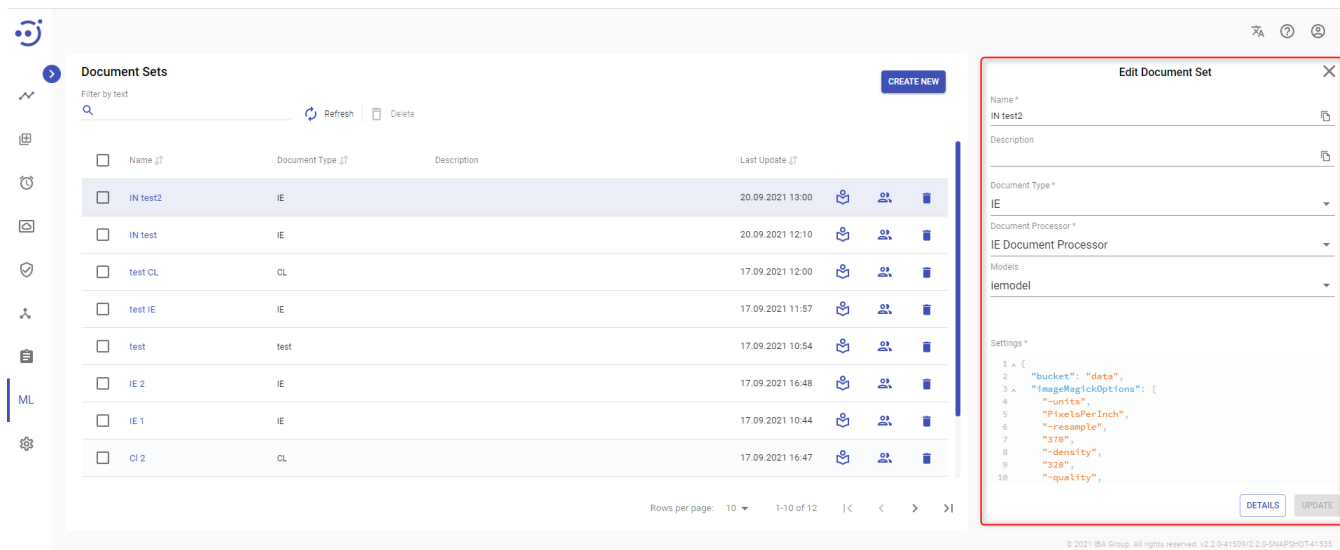
- imageMagickOptions - ImageMagick command line options. ImageMagick tool is used to split pdf by pages and print as images. Please follow [Image Magick Command Line Documentation](#).
- hocrFixWords - Map with string key-value pairs. Key is a regex and it is used to find mistakes in each word separately. All matches are replaced by value string.
- Click **CREATE** button the save the document set. A new document set is created.



To create a new document set, you need to be granted DocumentSet-CREATE permission (with AutomationProcess-READ and DocumentType-READ). See [\(v. 2.2\) Role Permissions](#).

Edit Document Sets

To edit key information about an existing document set click on **the corresponding row** with the document set. **Edit Document Set** panel is displayed on the right. Required Permissions: DocumentSet-UPDATE (with AutomationProcess-READ and MIModel-READ). See [\(v. 2.2\) Role Permissions](#).



You can edit the following information about a document set on the displayed panel:

- Name – the document set name;
- Description – the document set short description;
- Document Type – a human task document type to be selected from the dropdown list, a document type defines how the documents are displayed on Human Task for tagging, which output fields should be extracted during the tagging and Machine Learning training;
- Document Processor – an automation process for the document set workflow, it includes preparation steps to display documents on the Human Task;
- Model – a ML model used to process the document set.

- Settings - OCR configuration including Storage bucket name, Tesseract options, Image Magick and HocrFixWords options:
 - document_bucket – name of Storage bucket where OCR results will be saved;
 - tesseractOptions - Tesseract OCR command line options. Please see the external documentation [Tesseract Command Line Usage](#).
 - imageMagickOptions - ImageMagick command line options. ImageMagick tool is used to split pdf by pages and print as images. Please follow [Image Magick Command Line Documentation](#).
 - hocrFixWords - Map with string key-value pairs. Key is a regex and it is used to find mistakes in each word separately. All matches are replaced by value string.

To manage documents within an existing document set click **Details** and proceed to **Documents** page.

To save the result of editing click **UPDATE** button.

The screenshot shows the 'Document Sets' management interface. On the left, a table lists document sets with columns for Name, Document Type, Document Processor, Description, and Last Update. The 'IPVN' document set is selected. On the right, the 'Edit Document Set' modal is open, showing fields for Name, Description, Document Type, Document Processor, and Models. At the bottom of the modal, there are 'DETAILS' and 'UPDATE' buttons, with the 'UPDATE' button highlighted by a red box.

To edit a document set, you need to be granted DocumentSet-UPDATE permission. See [\(v. 2.2\) Role Permissions](#).

Delete Document Sets

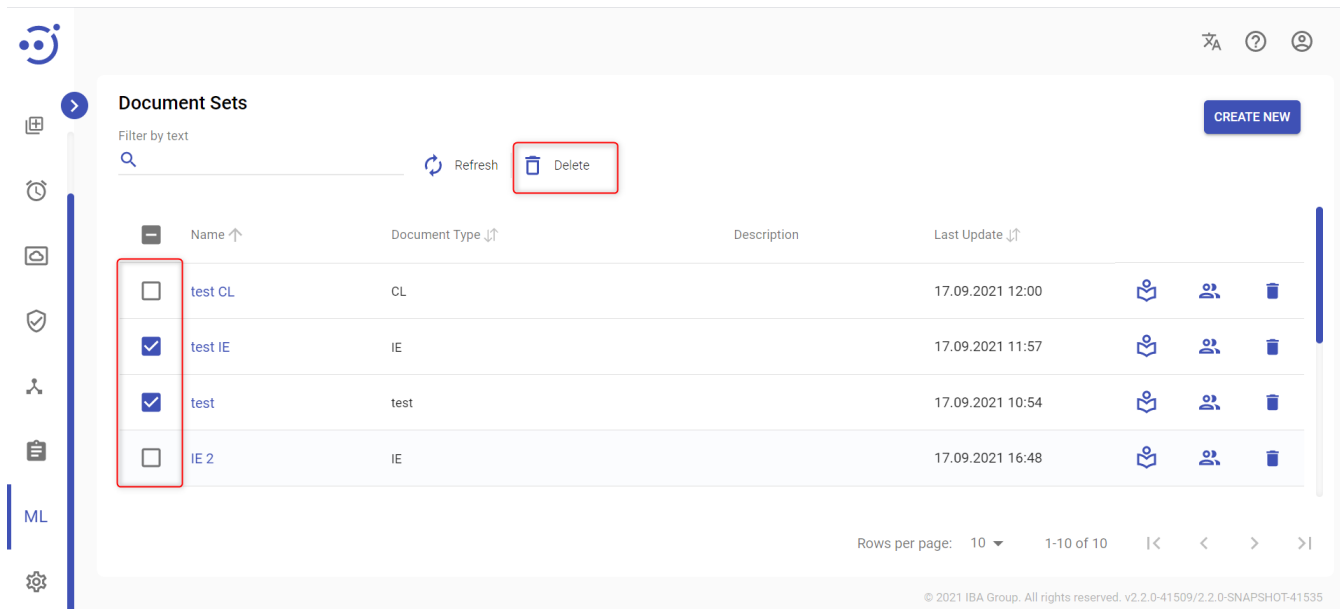
A single document set can be deleted by clicking **Delete** control icon in the corresponding document set row and confirming deletion.

The screenshot shows the 'Document Sets' management interface. A table lists document sets with columns for Name, Document Type, Description, and Last Update. The 'IN test2' document set is highlighted. In the right-hand side of this row, there are three icons: a document icon, a user icon, and a trash can icon. The trash can icon is highlighted with a red box.

To delete multiple document sets you need to:

- **Place checkmarks** next to desired document sets.
- Click **Delete** icon at the top of the page.

- Confirm deletion.

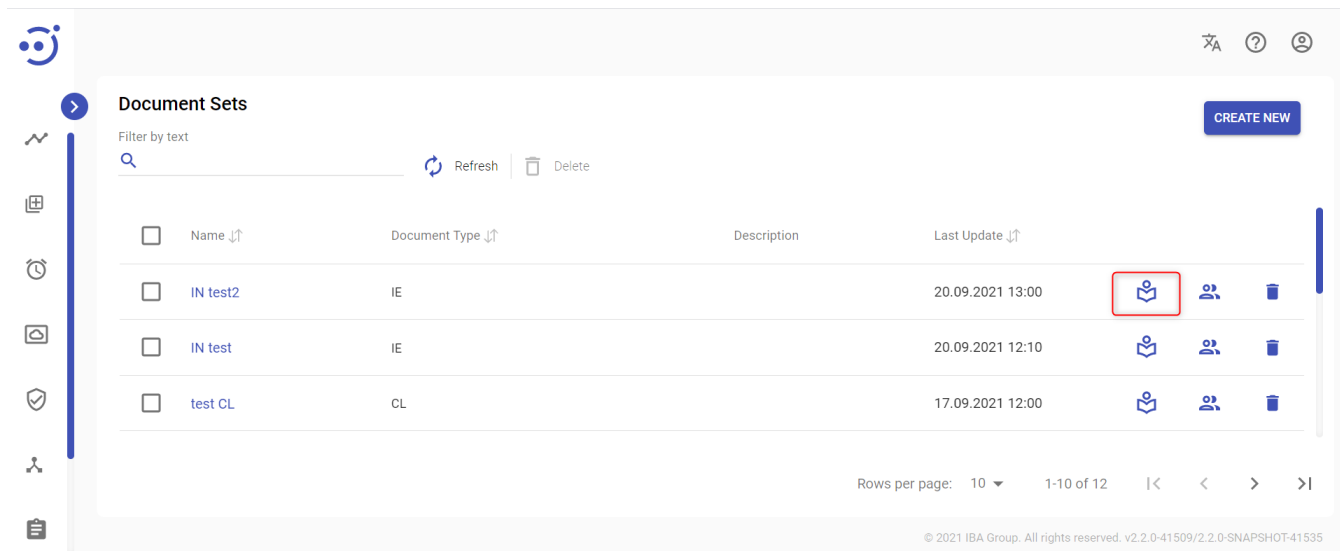


To delete a document set, you need to be granted DocumentSet-DELETE permission. See [\(v. 2.2\) Role Permissions](#).

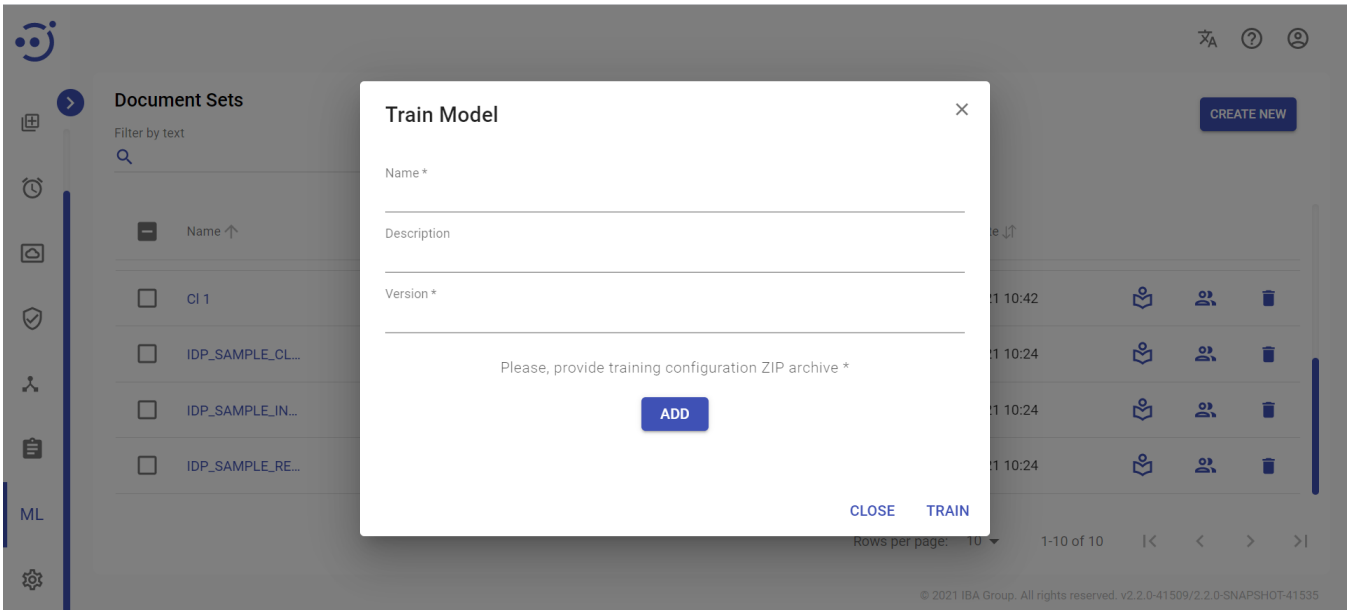
Train Model

To train a model on a prepared training set, you need to:

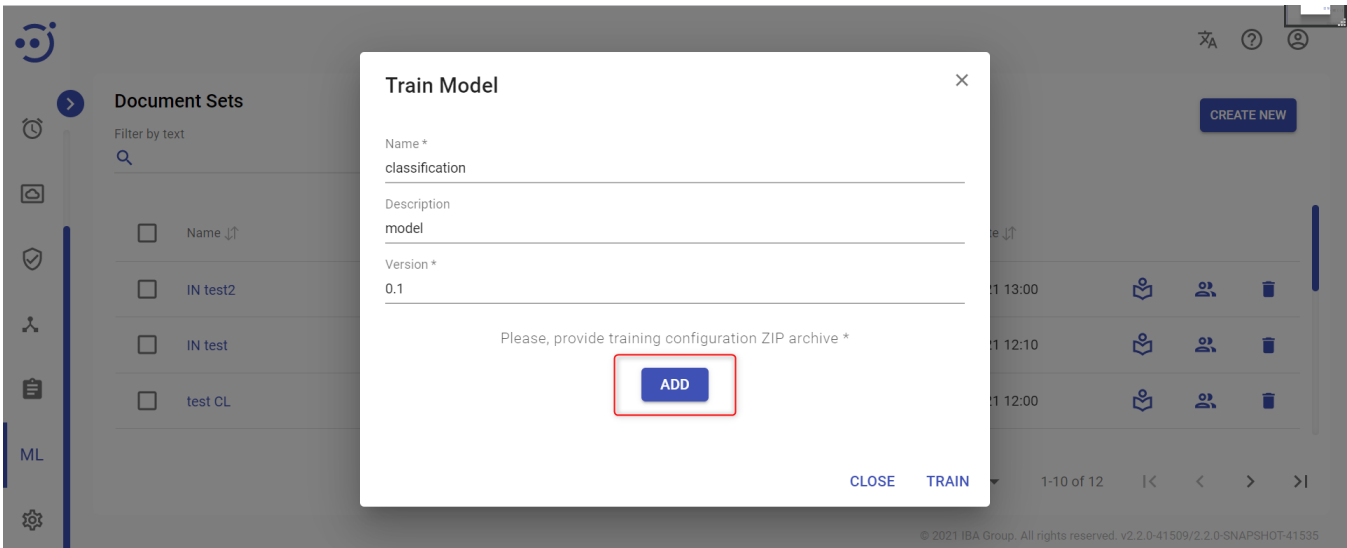
- click **Train Model** icon.



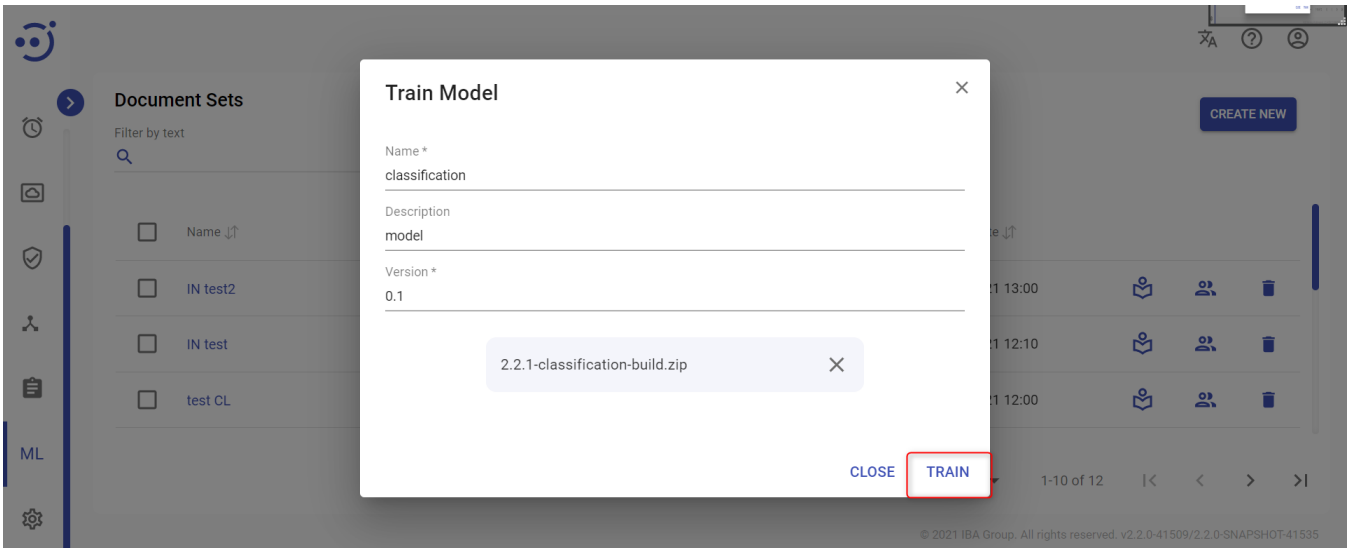
- The following dialog box appears:



- In the dialogue box you need to provide the following details:
 - **Name** - a name of the model to be trained.
 - **Description** - a short description.
 - **Version** - a model version.
- Click **Add** button to upload a .zip file with training configurations. A file explorer window is displayed. Select a .zip file to be uploaded into the document set and click **Open**.
- A .zip file with configurations for Classification Models should contain one file:
 - **model.json** - required
- A .zip file with configurations for Information Extraction Models may contain up to 4 files:
 - **model.json** - required
 - **labels.json**
 - **base_model_patterns.json**
 - **post_processing_rules.json**



- Click **Train** to start ML model training.



To train a model , you need to be granted MIModel-CREATE permission. See [\(v. 2.2\) Role Permissions](#).

Model training can also be launched from the Documents page. See [\(v. 2.2\) Documents](#).

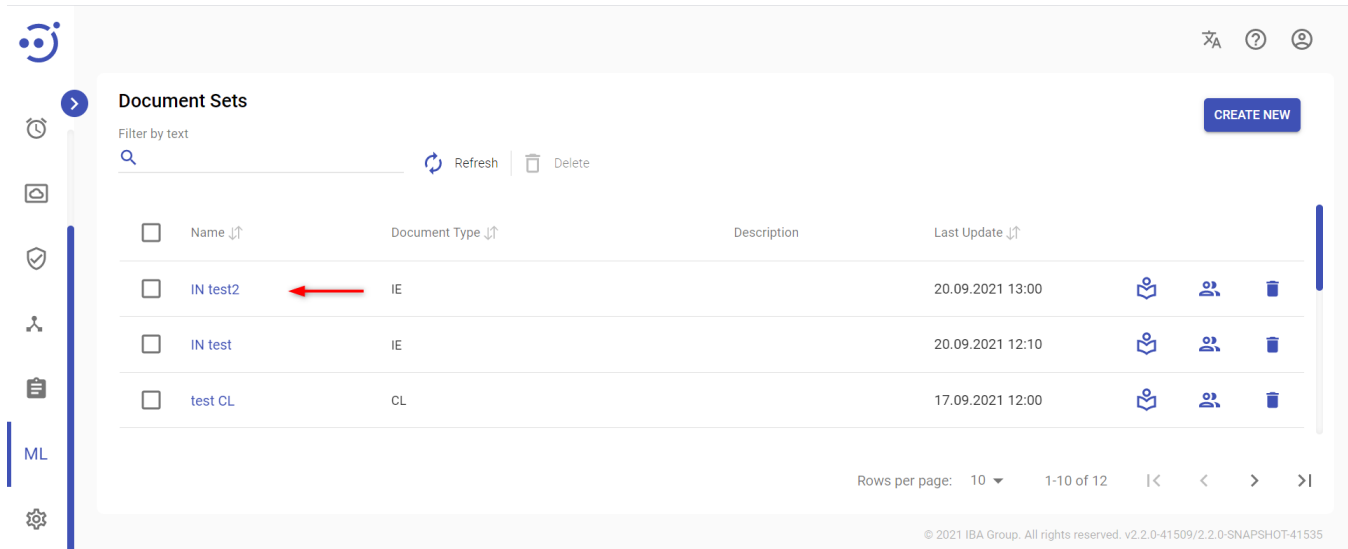
(v. 2.2) Details

- [Details](#)

The Documents page contains key information about an existing document set, its processing lifecycle and configuration parameters. You can view/edit document set details, OCR configuration parameters, and manage documents. To view the document set details, you need to be granted DocumentSet-READ permission. See [\(v. 2.2\) Role Permissions](#).

To access Documents, you need to:

- Navigate to the **Document Sets** page.
- Click on the corresponding **Document Set Name**.



Details

The Details tab displays general settings that are necessary for the document set creation and processing.

You can **view/edit the following information** about a document set on the Details tab:

- Name – the document set name;
- Description – the document set short description;
- Document Type – a human task document type to be selected from the dropdown list;
- Document Processor – an automation process for the document set workflow. The document processor includes converting PDFs into images format, image improvements using ImageMagick scripts, sending images to OCR, sending documents with OCR response to Human Task, processing Human Task response to convert results into Machine Learning input format.
- Model – a ML model used to process the document set.
- Settings - OCR configuration including Storage bucket name, Tesseract options and Image Magick options:
 - document_bucket – name of Storage bucket where OCR results will be saved.
 - tesseractOptions - Tesseract OCR command line options. Please see the external documentation [Tesseract Command Line Usage](#).
 - imageMagickOptions - ImageMagick command line options. ImageMagick tool is used to split pdf by pages and print as images. Please follow [Image Magick Command Line Documentation](#).
- To save the result of editing click **UPDATE**.

Document Sets / IN test2

Documents ← Back to list

Upload documents

Details Documents Runs

Name*
IN test

Description

Document Type*
IE

Document Processor*
IE Document Processor

Models
iemodel

Settings*

```
1 {
2   "bucket": "data",
3   "imageMagickOptions": [
4     "units",
5     "PixelsPerInch",
6     "--resample",
7     "370",
8     "--density",
9     "320",
10    "--quality",
11    "100",
12    "--background",
13    "white",
14    "--deskew",
15    "48%",
16    "--contrast",
17    "--alpha",
18    "flatten"
19  ],
20  "tesseractOptions": [
21    "-l",
22    "eng",
23    "--psm",
24    "12",
25    "--oem"
```

UPDATE

© 2021 IBA Group. All rights reserved. v2.2.0-41509/2.2.0-0-SNAPSHOT-41535

To manage documents within an existing document set click **Documents** tab.

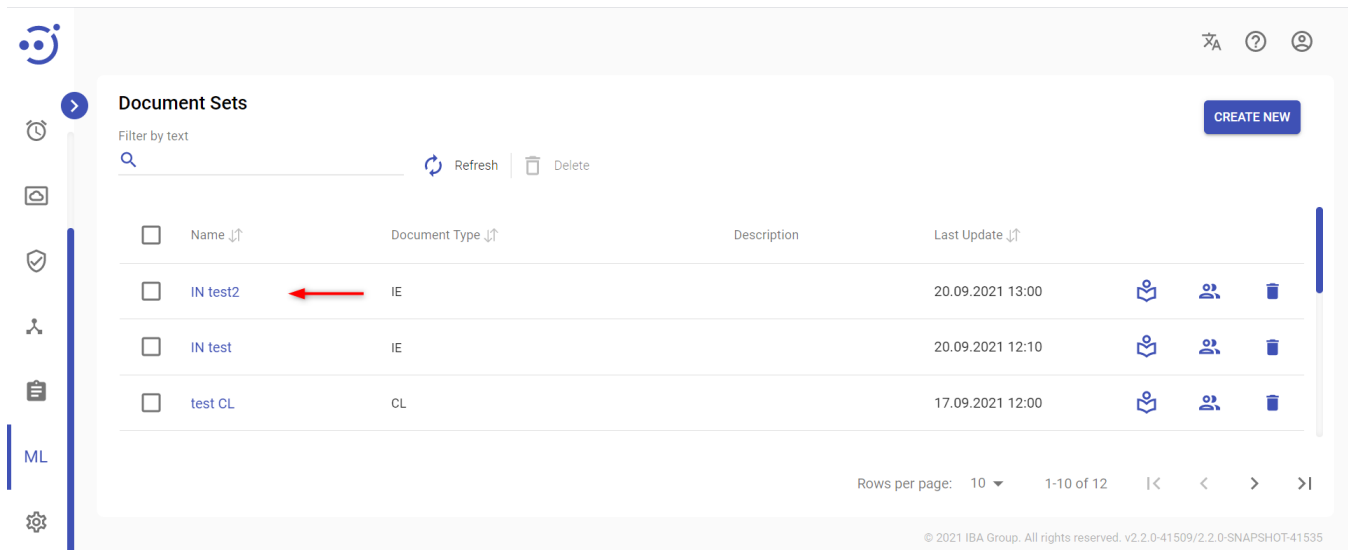
(v. 2.2) Documents

- Documents Overview
- Manage Documents
 - Upload Documents to a Document Set
 - Edit Document Details
 - Delete Documents
 - Process Documents
 - Prepare Document Input for Tagging
 - Tag Documents by Model
 - Review and Edit Model Output
 - Tag Documents Manually
 - Prepare training set
 - Generate Model Report
 - Export Document Set Data
 - Import Document Set Data
 - Train Model
- Documents Status Lifecycle

The Documents page contains key information about an existing document set, its processing lifecycle and configuration parameters. You can view/edit document set details, OCR configuration parameters, and manage documents. To view the document set details, you need to be granted DocumentSet-READ permission. See (v. 2.2) [Role Permissions](#).

To access Documents, you need to:

- Navigate to the **Document Sets** page.
- Click on the corresponding **Document Set Name**.

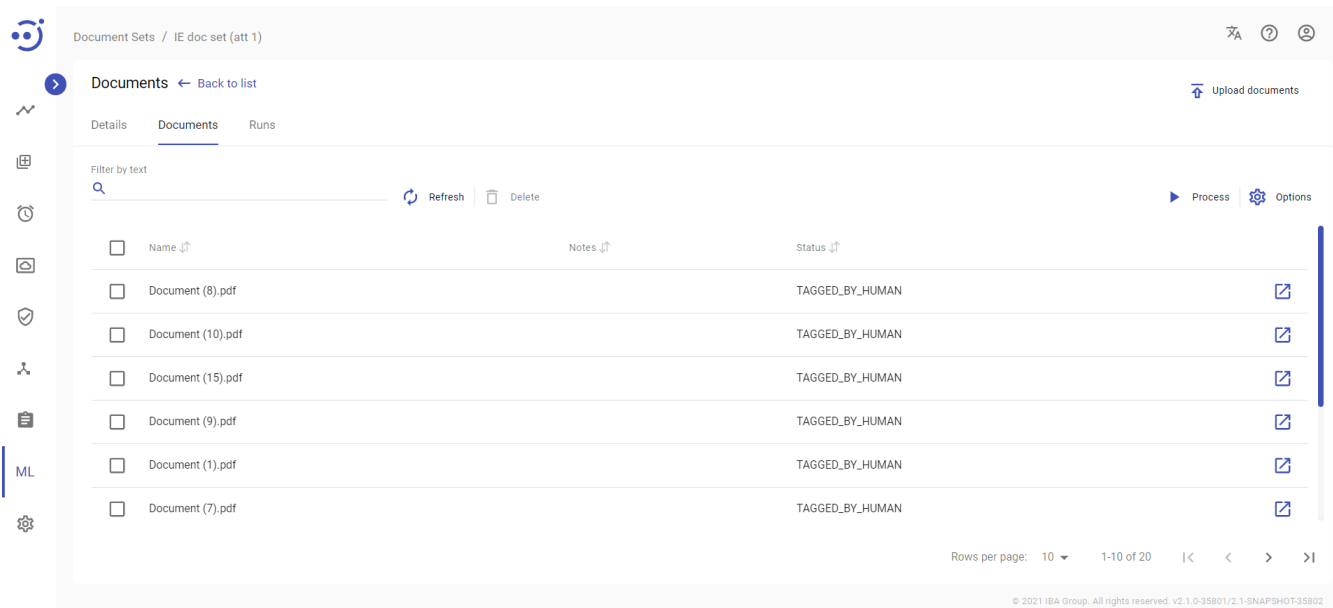


To manage documents within an existing document set click **Documents** tab.

Documents Overview

The **Documents** tab contains key information about all documents within a particular document set, their statuses as well as document inputs and outputs.

You can manage the documents using control buttons. To access the documents of a particular document set, you need to be granted DocumentSet-READ permission. See (v. 2.2) [Role Permissions](#).



Columns Description

- Name - the name of a document within a document set.
- Notes - the notes on a document within a document set.
- Status - the current status of the document processing.

Control icons

- Upload documents - to upload/add documents to an existing document set. Required permission: DocumentSet-UPDATE.
- Refresh - to pull the latest updates from the server.
- Delete - to delete documents from a document set. Required Permission: DocumentSet-DELETE.
- Process - to access dropdown run controls of documents:
 - Re-process - to trigger document processor and prepare document input;
 - Execute Model - to launch tagging by ML model;
 - Move Model to Human - create a Human Task to review/edit (improve) ML model results;
 - Send to Workspace - create a Human Task for tagging;
 - Generate Model Report - generate statistics report of ML model results (both model and human output results are required to generate statistics report);
 - Prepare training set - [prepare document set for training](#).

The run can be done for all documents if no documents are marked with checkmarks, or selected documents if there are marked with checkmarks documents. Required Permission: DocumentSet-ACTION.

- Options - to access dropdown options to manage all documents of a document set:
 - Export Document Set Data- store all files from File Storage folder into files of .zip and export records into a .csv;
 - Clear Document Set - delete all document from a training set;
 - Train Model - launch model training;
 - Import Document Set Data - store (with override) all files from .zip into File Storage, add new records into a datastore using records.csv from .zip, replace all File Storage references with new paths;
 - Open Automation Process Runs - opens document processor Runs page. See [\(v. 2.2\) Automation Process Run](#).
- Open Document - to view/edit human and model output of a document. Required Permission: DocumentSet-READ.

Filter by text

Filtering allows you to search the documents by its Name, Notes and Status.

Sorting

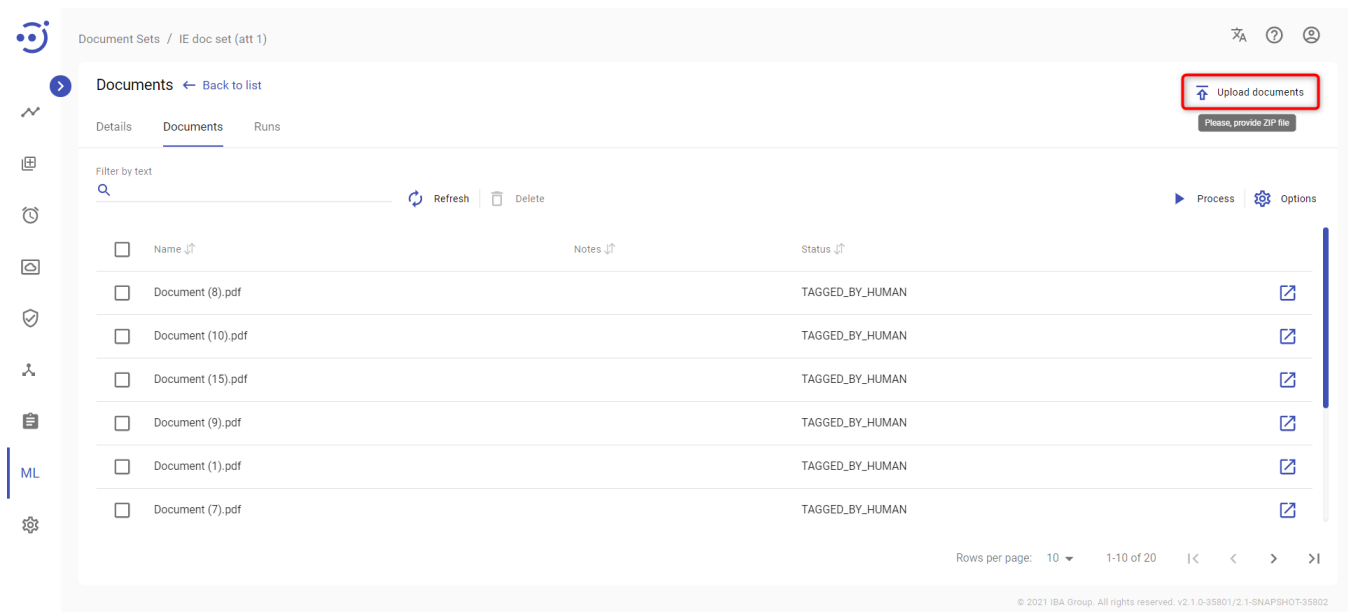
Ascending/descending sorting is allowed for the Name, Notes and Status columns.

Manage Documents

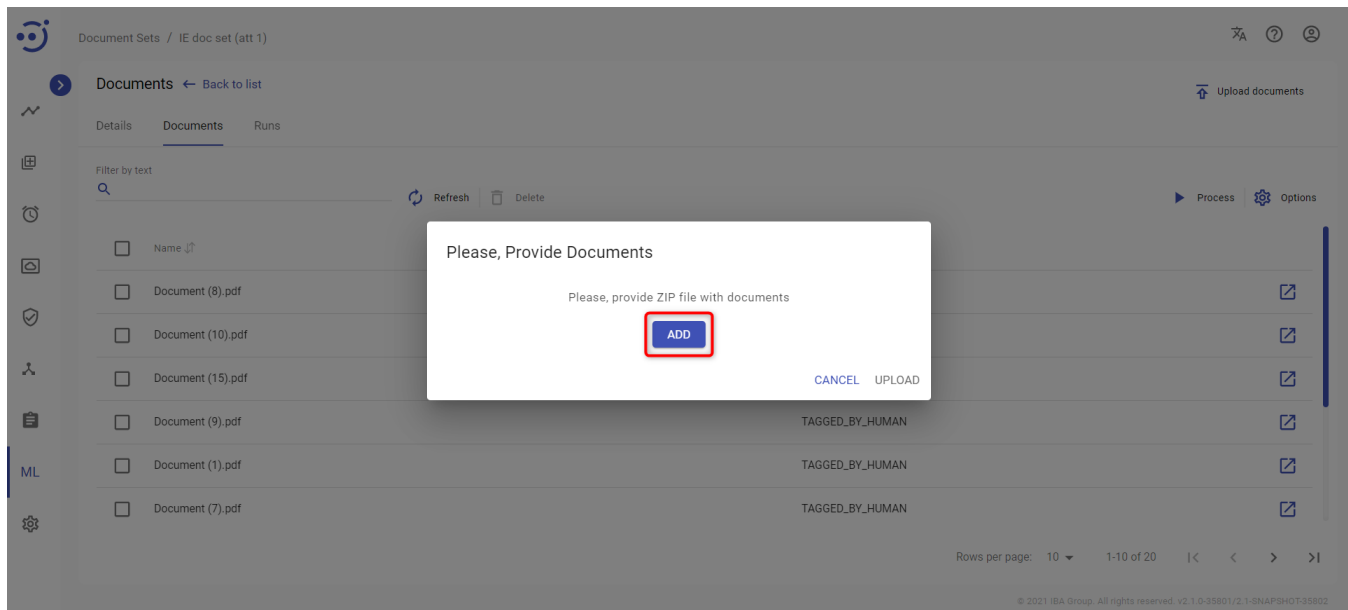
Upload Documents to a Document Set

To add documents to an existing document set, you need to:

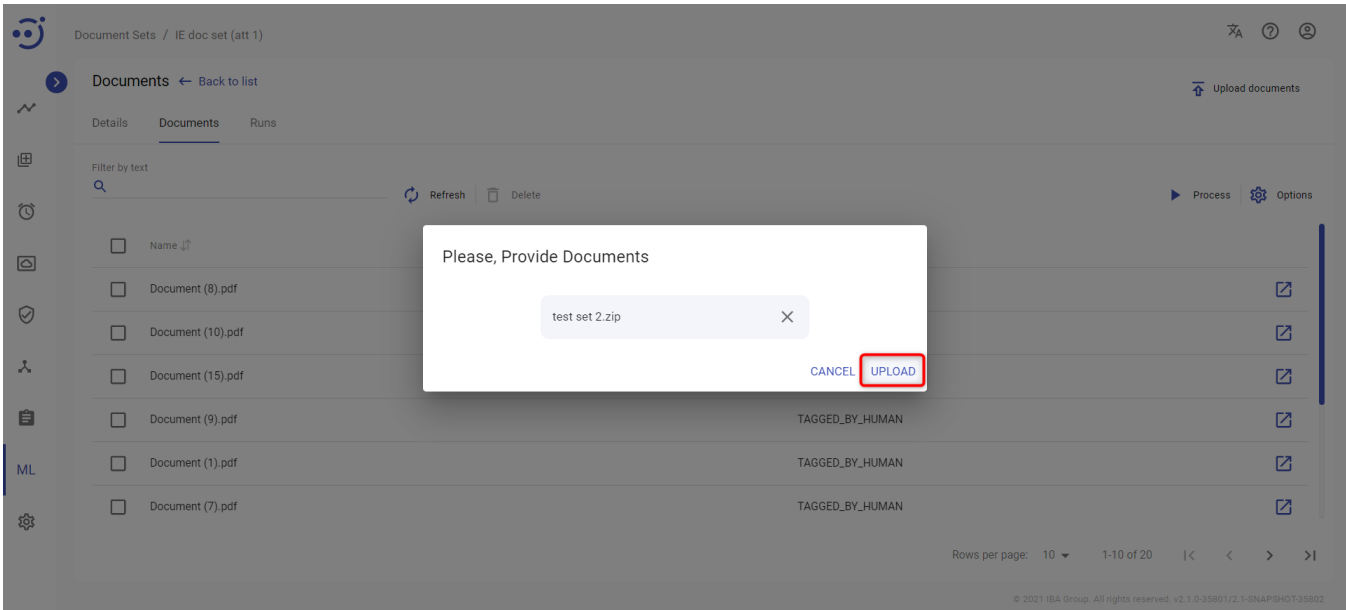
- Navigate to the **Documents**.
- Click **Upload documents**.



- In the pop-up window click **ADD** button to upload a .zip file with documents.



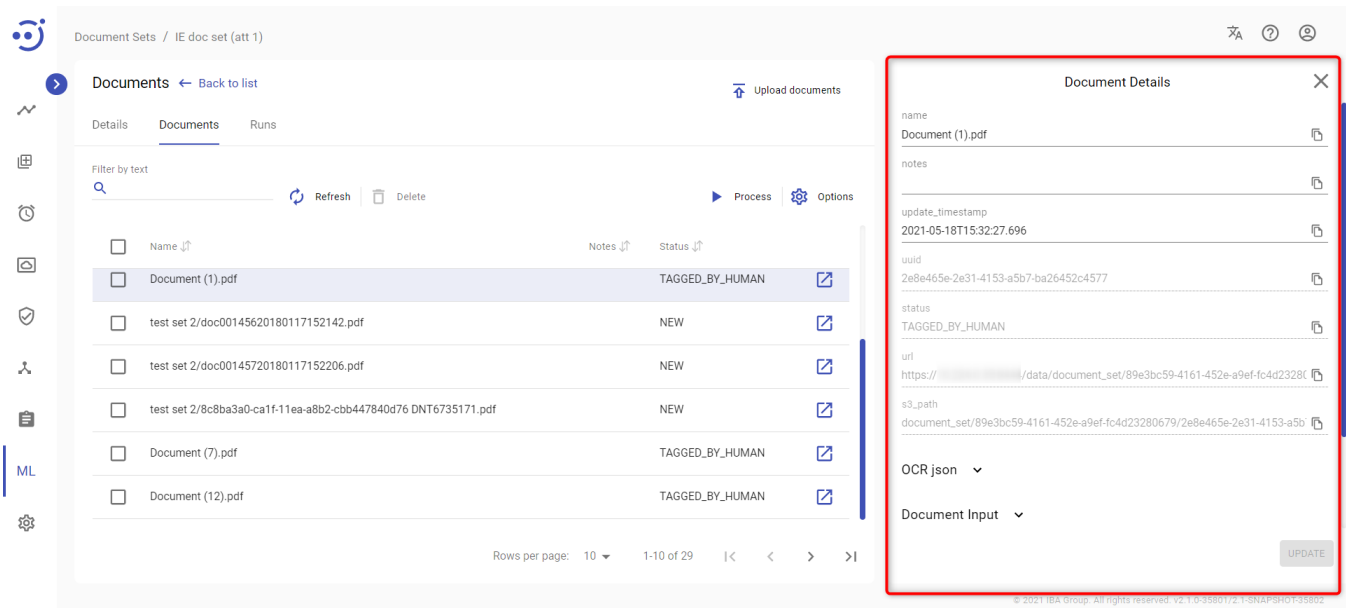
- A file explorer window is displayed. **Select a .zip file** to be uploaded into the document set and click Open.
- Click **UPLOAD**. The documents from the .zip file are added to the document set.



To upload documents to an existing document set, you need to be granted DocumentSet-UPDATE permission. See (v. 2.2) [Role Permissions](#).

Edit Document Details

To view/edit key information about a document click on the row with the corresponding document. **Document Details** panel is displayed on the right.



You can **view/edit the following information** about a document on the displayed panel:

- name – the name of a document;
- notes – the notes on a document;
- update_timestamp – the last moment in time when a document was updated in yyyy-MM-dd HH:mm:ss.SSS format;
- uuid – the document unique identifier;
- status – the current status of a document processing;
- url – the document url;
- s3_path – the document path on File Storage;
- OCR json – the result of OCR document conversion in json format;

- Document Input – generated as a result of 'Re-process' action that triggers the document processor and prepares input data for Human Tasks and ML.
- Human Output – generated as a result of tagging a document via Human Task;
- Model Output – generated as a result of ML model processing of a document;

When a document is new, **OCR json**, **Document Input**, **Human Output** and **Model Output** details are empty.

To save the result of editing click **UPDATE** button.

The screenshot shows the 'Document Sets / IE doc set (att 1)' interface. On the left, there's a sidebar with navigation icons. The main area is titled 'Documents' and contains a table of documents. The table has columns for 'Name', 'Notes', and 'Status'. The first document, 'Document (1).pdf', is selected and highlighted. To the right, a 'Document Details' panel is open, showing fields like 'name', 'notes', 'update_timestamp', 'uuid', 'status', 'uri', and 's3_path'. At the bottom of this panel, there are dropdown menus for 'OCR json' and 'Document Input', and a blue 'UPDATE' button highlighted with a red box.

To edit document records, you need to be granted DocumentSet-UPDATE permission. See (v. 2.2) [Role Permissions](#).

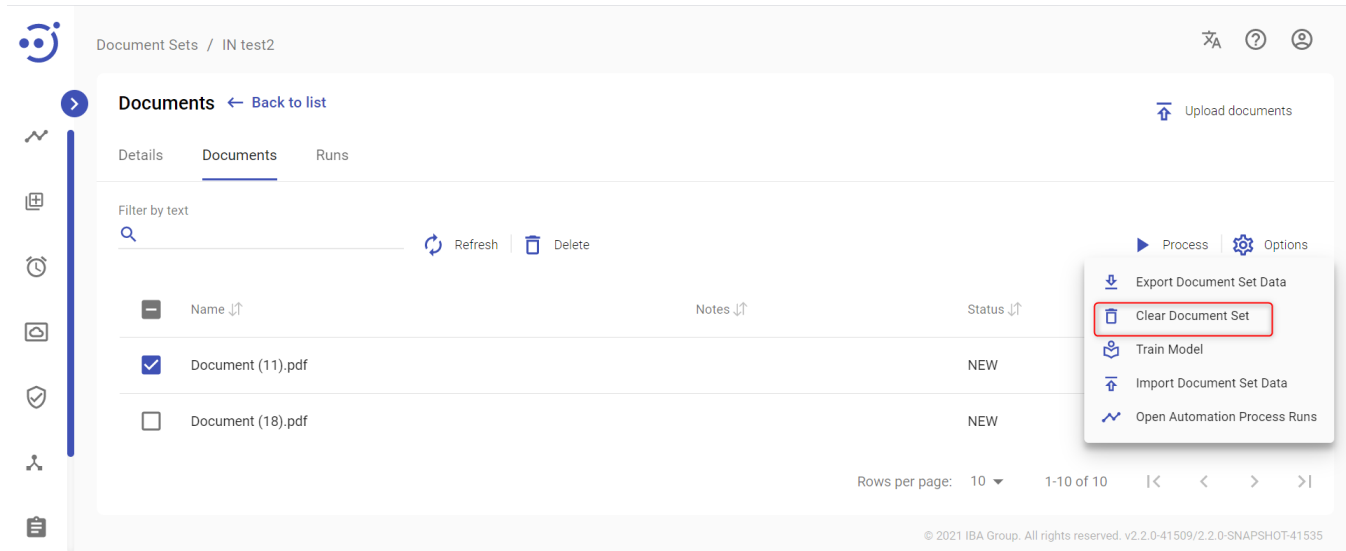
Delete Documents

To delete documents from a document set, you need to:

- **Place checkmarks** next to desired documents.
- Click **Delete** icon at the top of the documents list.
- Confirm deletion.

The screenshot shows the 'Document Sets / IE doc set (att 1)' interface. The 'Documents' table is visible, with two documents selected: 'test set 2/doc00145620180117152142.pdf' and 'test set 2/doc00145720180117152206.pdf'. The 'Delete' icon in the top right of the table area is highlighted with a red box.

To delete all documents from a document set, click **Clear Document Set** in Options menu and confirm deletion.



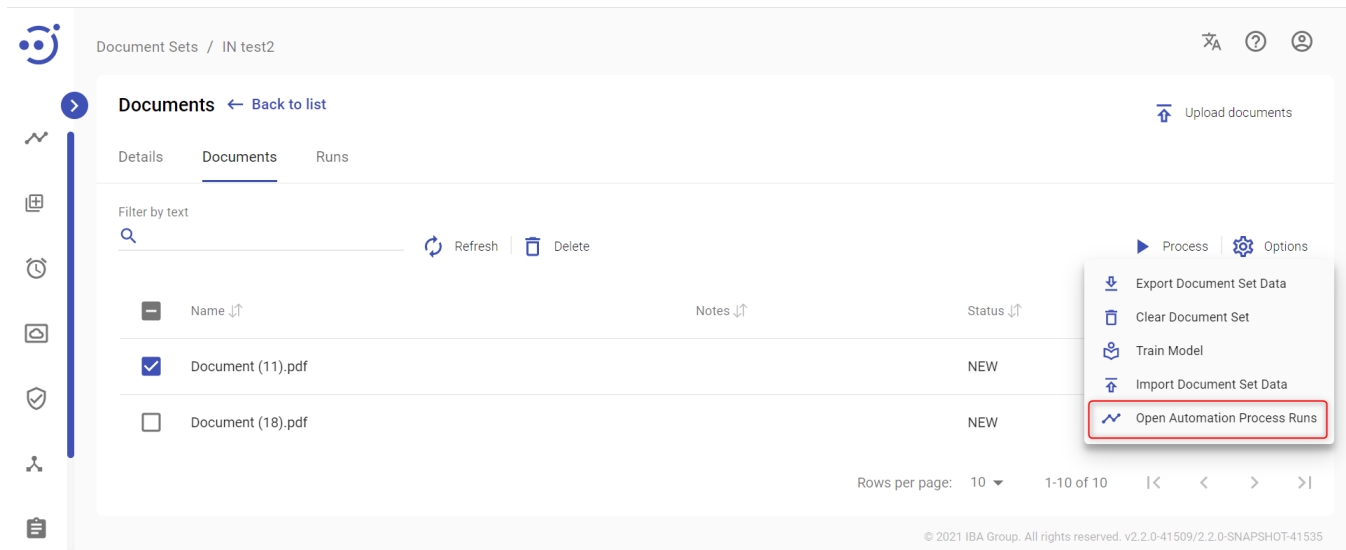
To delete documents, you need to be granted DocumentSet-UPDATE permission. See [Role Permissions](#).

Process Documents

Process dropdown menu encapsulates tools targeted at preparing quality data sets to train ML models.

If no documents are marked with checkmarks on the documents list, the actions will be performed on all documents in a document set. If there are documents marked with checkmarks on the documents list, the actions will be performed on the selected documents.

Selecting actions on the **Process** dropdown menu will trigger **Document Processor** with specified actions. When a Document Processor starts working, its progress can be monitored in Runs Management and Automation Process Runs. **Automation Process Runs** can be accessed from **Options** dropdown menu:

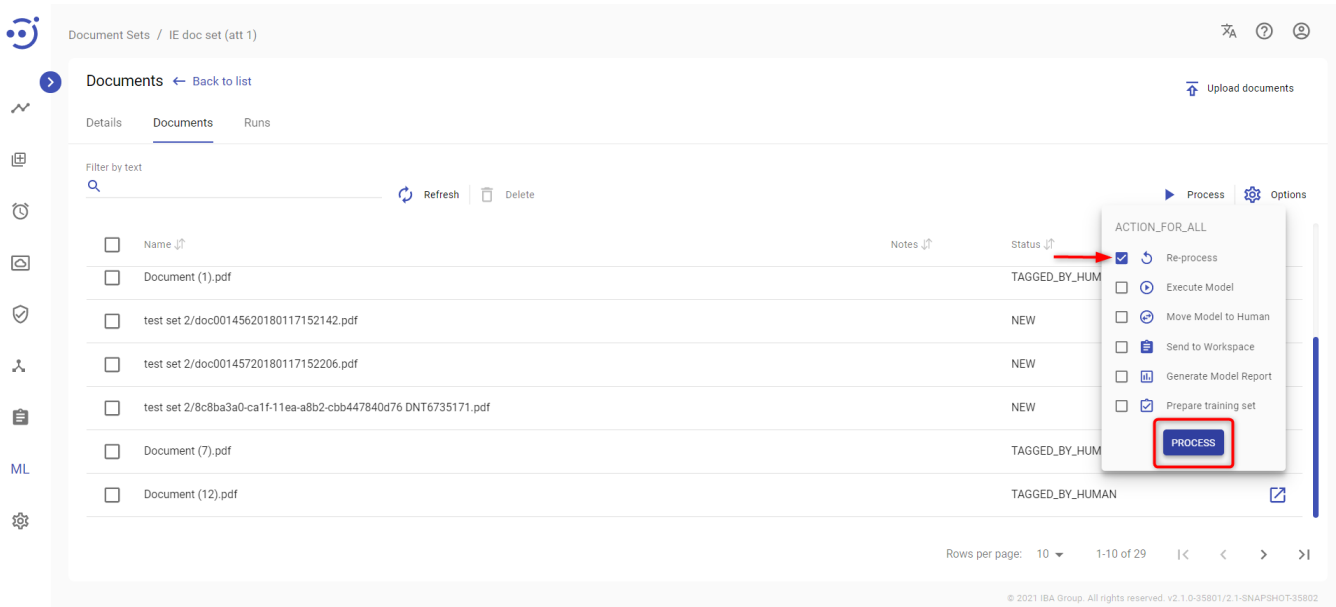


To process documents you need to be granted DocumentSet-ACTION permission. See [\(v. 2.2\) Role Permissions](#).

Prepare Document Input for Tagging

To perform OCR conversion of documents and prepare document input for tagging, you need to:

- Click **Process** icon at the top of documents list.
- Place a checkmark next to **Re-process** on the dropdown menu.
- Click **PROCESS** button.
- Confirm your action.



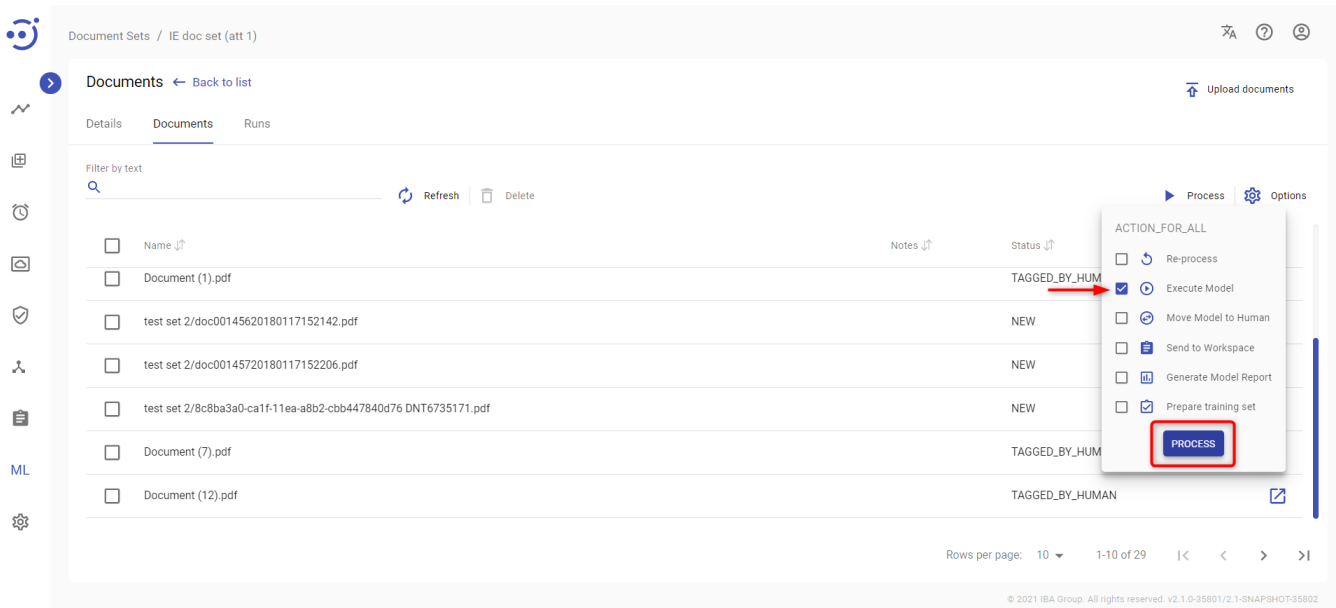
As a result of Re-process action **OCR json** and **Document Input** details are generated and can be viewed on Document Details panel. This data contains the result of OCR in an appropriate format.

Tag Documents by Model

Document Input generated as a result of Re-process action can be used for tagging a document by a ML model if such model already exists.

To launch document tagging by a ML model, you need to:

- Click **Process** icon at the top of documents list.
- Place a checkmark next to **Execute Model** on the dropdown menu.
- Click **PROCESS** button.
- Confirm your action.

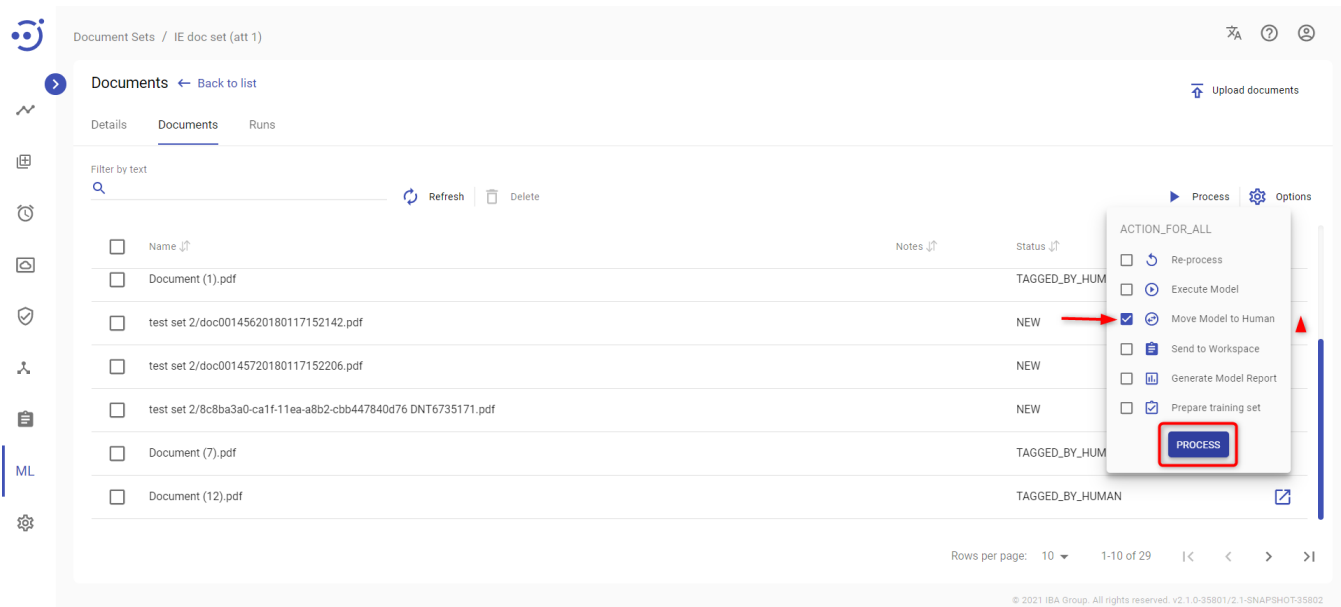


As a result of Execute Model action **Model Output** details are generated for a particular document and can be viewed on Document Details panel.

Review and Edit Model Output

To review and edit tagging performed by a model after Execute Model action, you need to:

- Click **Process** icon at the top of documents list.
- Place a checkmark next to **Move Model to Human** on the dropdown menu.
- Click **PROCESS** button.
- Confirm your action.



As a result of manual tagging **Human Output** details are generated for a particular document and can be viewed on Document Details panel.

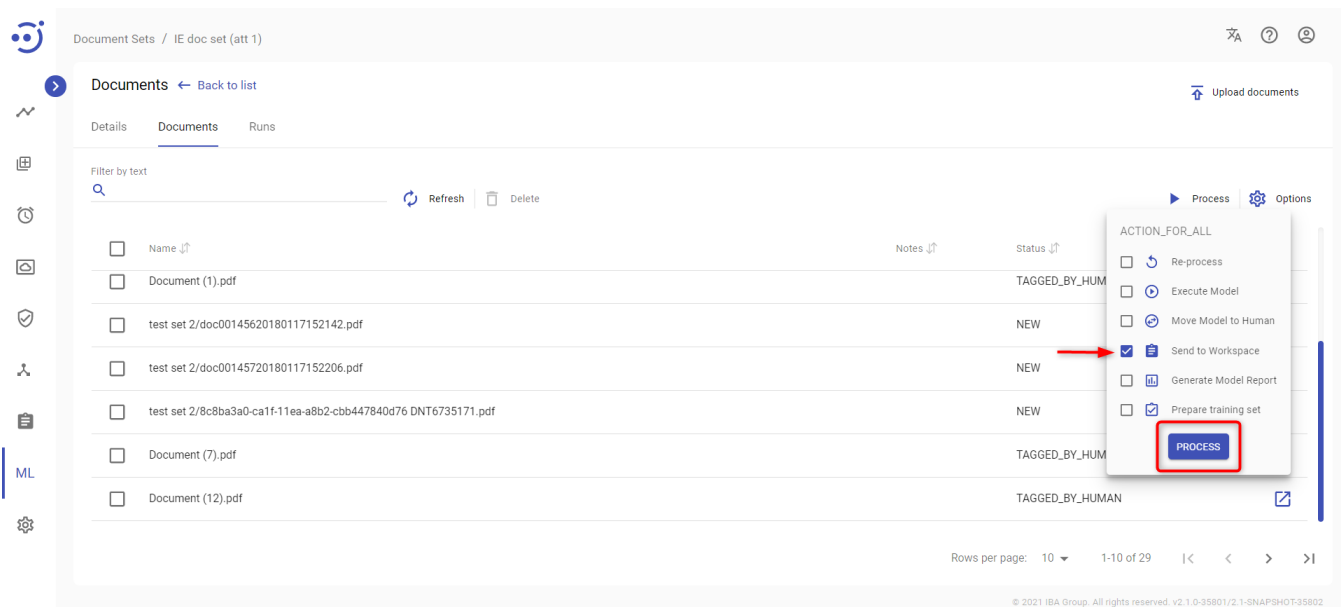
Tag Documents Manually

Document Input generated as a result of a Re-process action can be used for tagging a document in a Human Task.

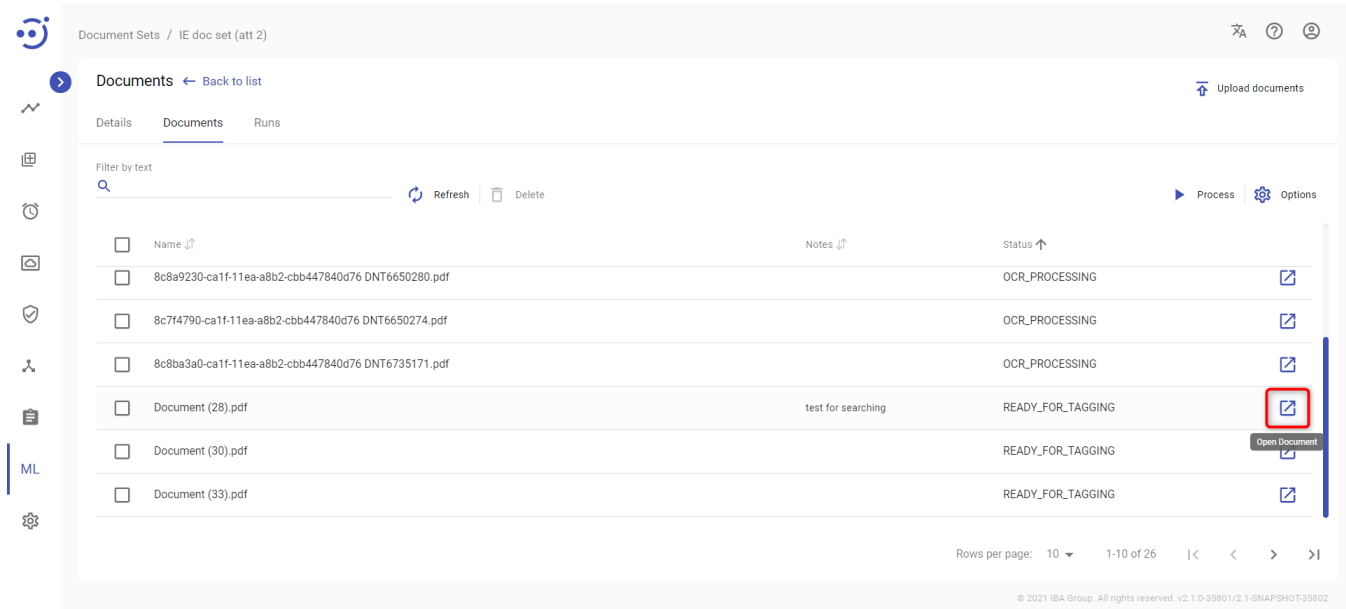
To create a Human Task to perform documents tagging, you need to:

- Click **Process** icon at the top of documents list.
- Place a checkmark next to **Send to Workspace** on the dropdown menu.
- Click **PROCESS** button.
- Confirm your action.

Documents should appear in Workspace as a Human Task under corresponding Document Type and manual tagging can be performed.



Another way to access a Human Task for tagging is to click **Open Document** icon (**Ctrl + Open Document** icon to open in a new tab) in the desired document row of the Documents tab.



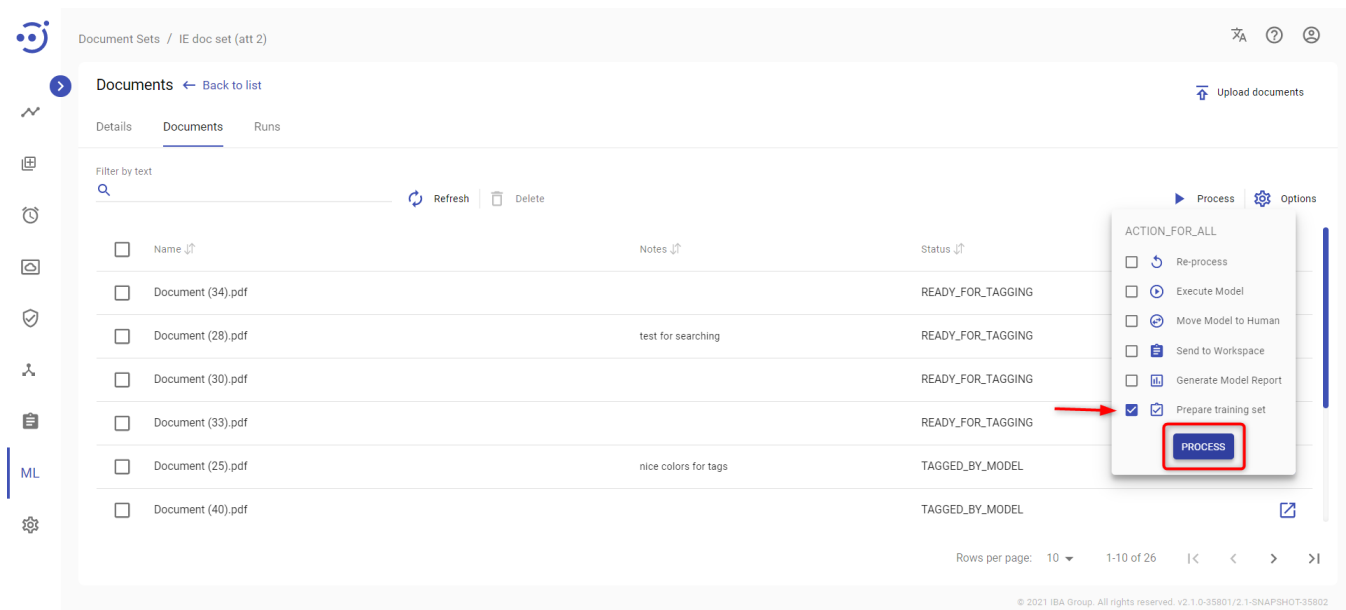
After document is tagged, **Human Output** details are generated for a particular document and can be viewed on Document Details panel.

Prepare training set

When tagging is completed the data needs to be prepared for model training.

To prepare data for model training, you need to:

- Click **Process** icon at the top of documents list.
- Place a checkmark next to **Prepare training set** on the dropdown menu.
- Click **PROCESS** button.
- Confirm your action.

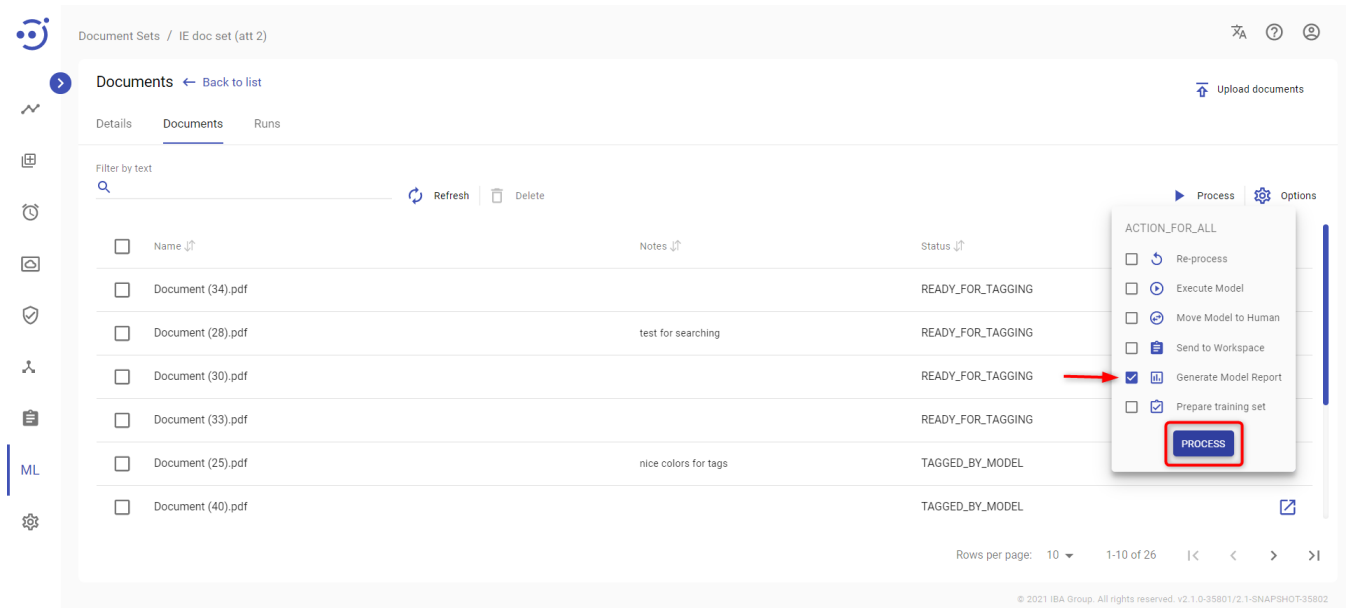


Now the training set is prepared and a ML model can be trained.

Generate Model Report

To calculate statistics and evaluate ML model performance, you need:

- Click **Process** icon at the top of documents list.
- Place a checkmark next to **Generate Model Report** on the dropdown menu.
- Click **PROCESS** button.
- Confirm your action

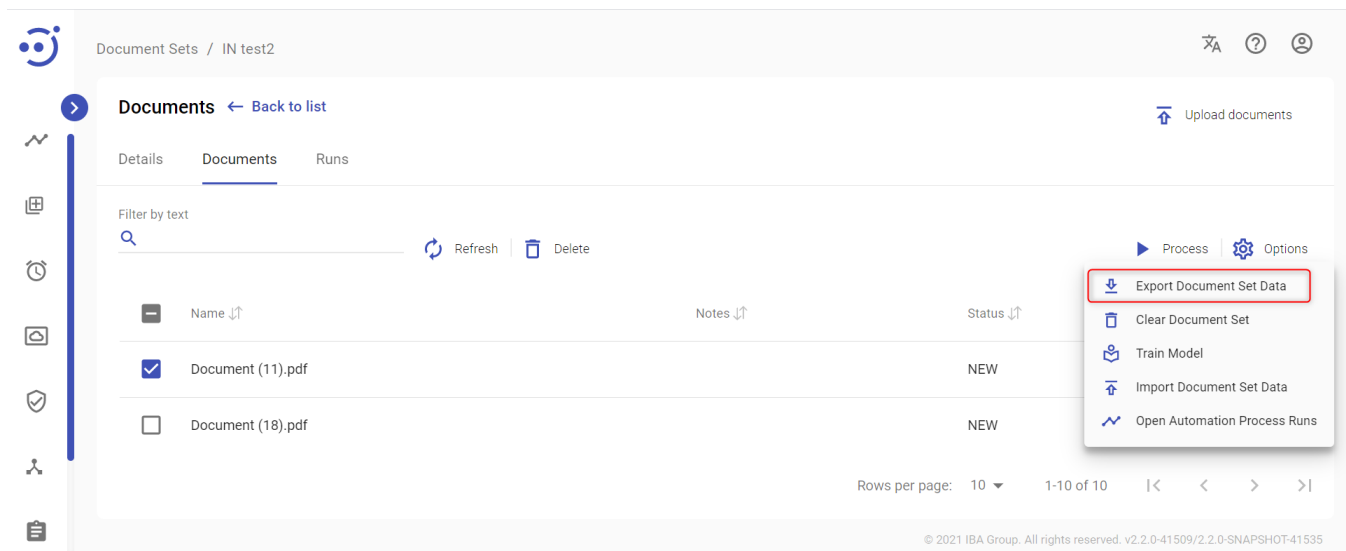


⚠ Both model and human output results are required to generate statistics report.

Export Document Set Data

A document set can be exported as a .zip package containing a complete set of historical data about the document set including metadata JSON file, initial document set files as well as files created as the result of document processor workflow conversions, a .csv containing all records.

To export a document set click **Export Document Set Data** icon on the **Options** menu.



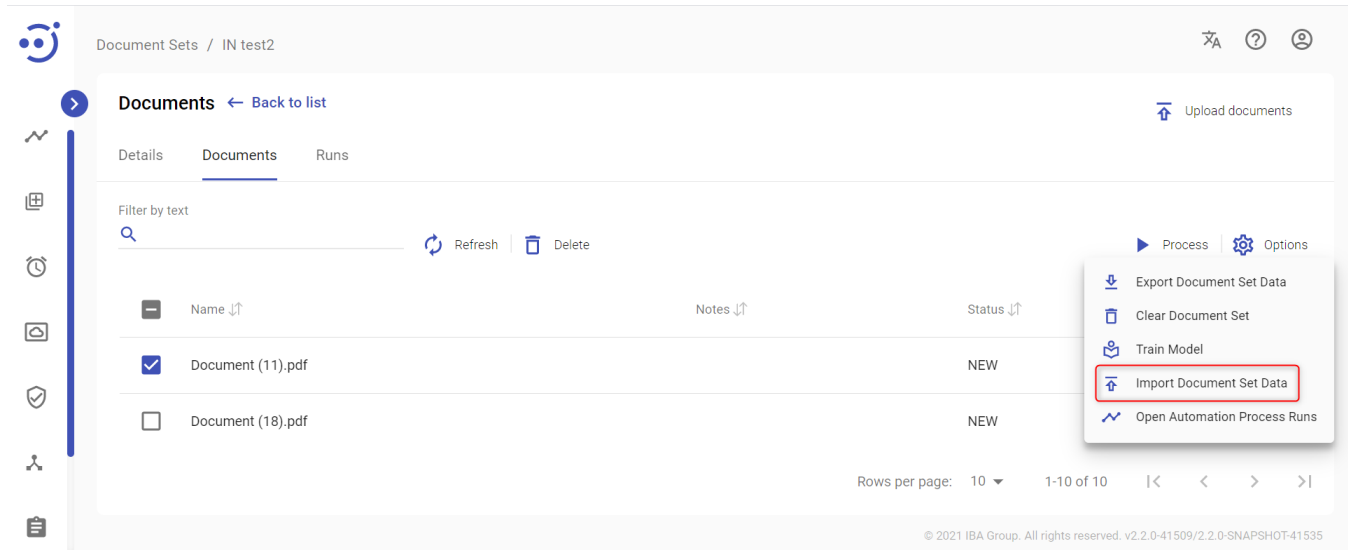
To export a document set, you need to be granted DocumentSet-READ permission. See [\(v. 2.2\) Role Permissions](#).

You can also export a document set using Export Document Set Data icon on Document Sets page. See [\(v. 2.2\) Document Sets](#).

Import Document Set Data

A .zip package with a document set that was earlier exported via Export Document Set Data and containing a complete set of files and records can be imported. All files from an imported .zip are saved to File Storage overriding existing files, new records are added to a document set datastore, all File Storage references are replaced with new paths.

To import a document set click **Import Document Set Data** icon on the **Options** menu.

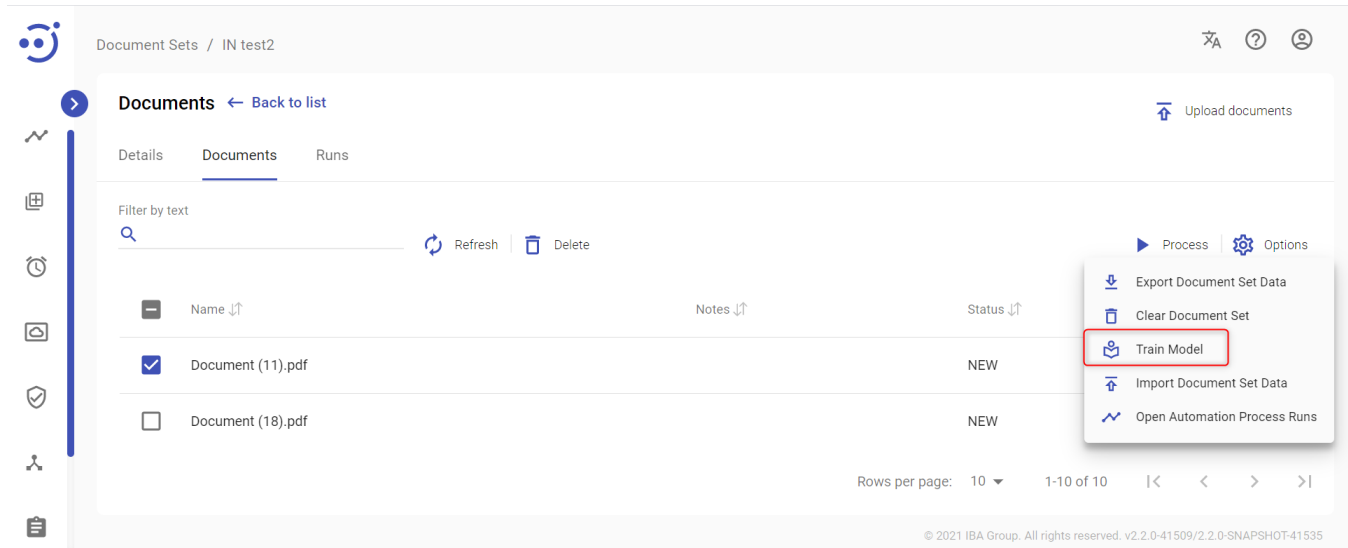


To import a document set, you need to be granted DocumentSet-UPDATE permission. See [\(v. 2.2\) Role Permissions](#).

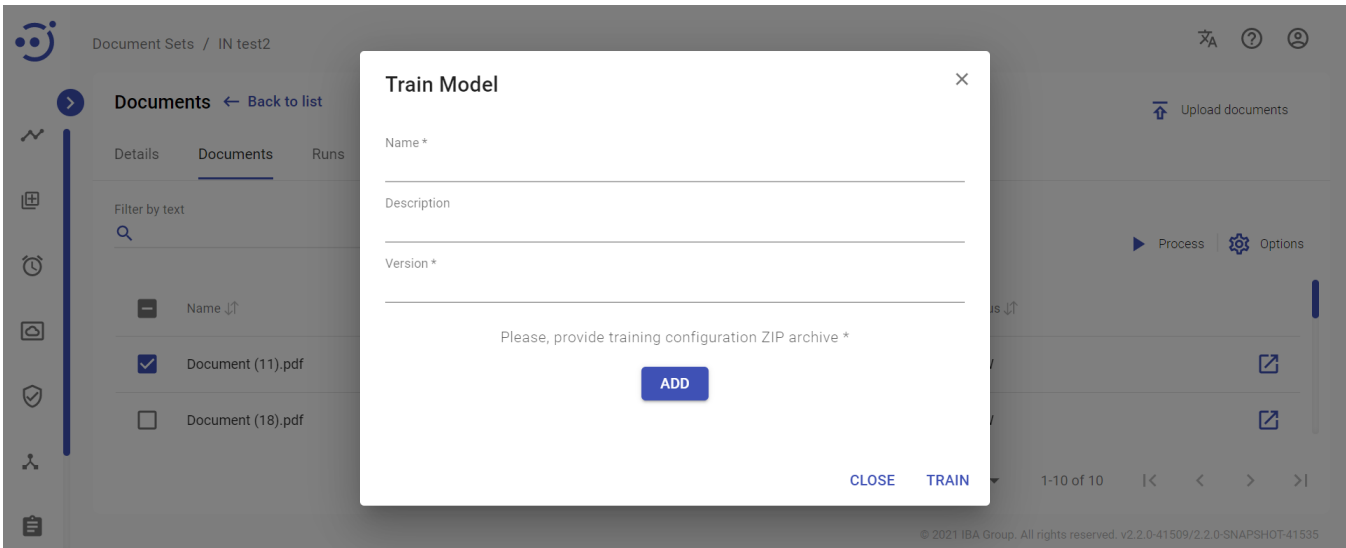
Train Model

To train a model on a prepared training set, you need to:

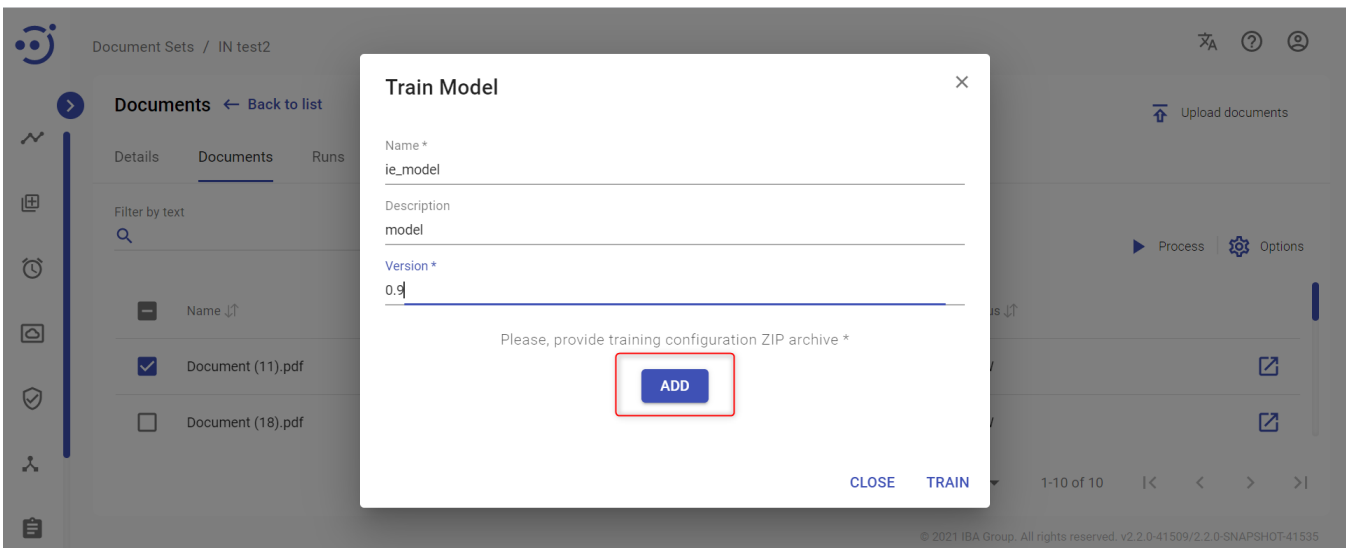
- click **Train Model** icon on the **Options** menu.



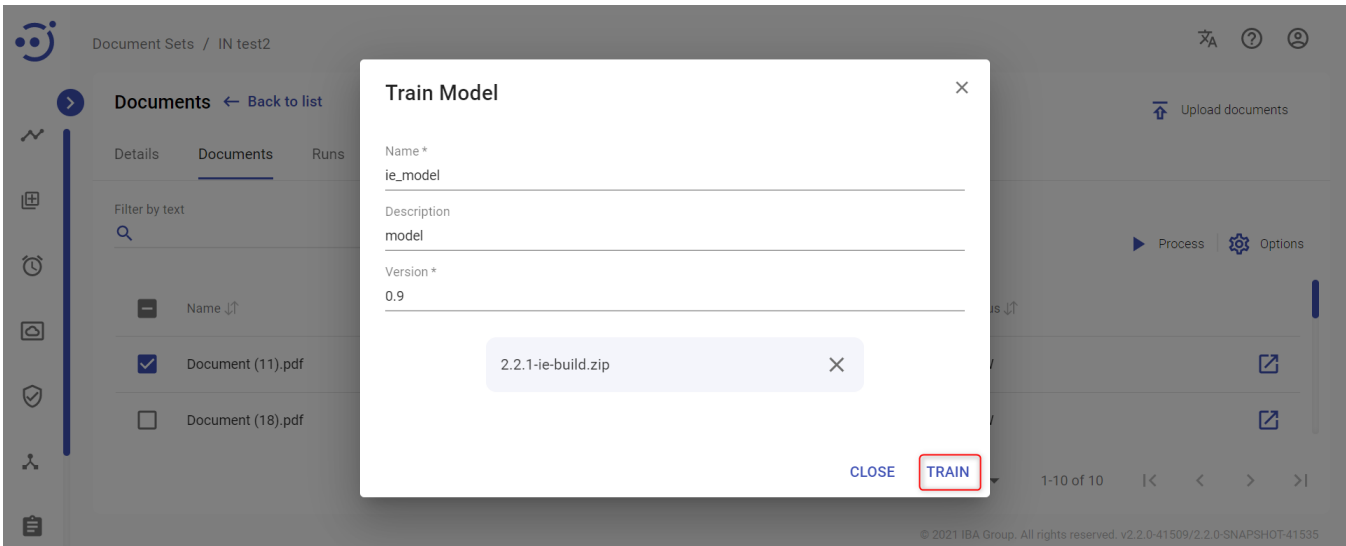
- The following dialog box appears.



- In the dialog box you need to provide the following details:
 - **Name** - a name of the model to be trained.
 - **Description** - a short description.
 - **Version** - a model version.
- Click **Add** button to upload a .zip file with training configurations. A file explorer window is displayed. Select a .zip file to be uploaded into the document set and click **Open**.
- A .zip file with configurations for Classification Models should contain 2 files:
 - **model.json**
 - **ocr_fixes.json**
- A .zip file with configurations for Information Extraction Models should contain 5 files:
 - **model.json**
 - **ocr_fixes.json**
 - **labels.json**
 - **base_model_patterns.json**
 - **post_processing_rules.json**



- Click **TRAIN** to start ML model training.



To train a model , you need to be granted MIModel-CREATE permission. See [\(v. 2.2\) Role Permissions](#).

Model Training can also be launched from the Document Sets page. See [\(v. 2.2\) Document Sets](#).

Documents Status Lifecycle

The lifecycle of a document is designed as a series of linked **statuses** that starts with creation of a document and follow it through multiple processing steps. Status changes occur as a document goes through its lifecycle.

When the document is sent to a workflow, it passes the following statuses:

- NEW - a document is created;
- OCR_PROCESSING - a document is being digitized with OCR;
- READY_FOR_TAGGING - a document is converted to be ready for displaying and processing in a Human Task and Machine Learning;
- TAGGING_BY_HUMAN - a document is being processed in a Human Task;
- TAGGING_BY_MODEL - a document is being processed by a Machine Learning model;
- TAGGED_BY_HUMAN - processing of a document in a Human Task is completed;
- TAGGED_BY_MODEL - processing of a document by Machine Learning model is completed.
- PREPARED_FOR_TRAINING - a document set is prepared for model training.

(v. 2.2) Runs

The Runs tab contains detailed information about runs performed for this document set, their history, and event log which help users to monitor particular process execution. To view the list of the document set runs, you need to be granted DocumentSet-READ permissions. See (v. 2.2) [Role Permissions](#).

Document Sets / IE doc set (att 2)

Documents ← Back to list

Upload documents

Filter by text

Refresh

Run ID	Created By	Creation Date	Status
IE Document Processor / 1038	Hanna Zaprutskaya	19.05.2021 22:13	Completed
IE Document Processor / 1029	Hanna Zaprutskaya	19.05.2021 11:24	Completed
IE Document Processor / 1022	Nastassia Burak	18.05.2021 22:33	Completed
IE Document Processor / 1008	Nastassia Burak	18.05.2021 16:09	Completed

Rows per page: 10 1-4 of 4

© 2021 IBA Group. All rights reserved. v2.1.0-35801/2.1-SNAPSHOT-35802

Each run has its own ID, information about a user who started the Automation Process and start Date/Time and run status (see (v. 2.2) [Automation Process Run](#) for all status values).

Filter by text

Filtering allows you to search the runs by Run ID, creator full name (column Created By) and Status.

Sorting

Ascending/descending sorting is allowed for Creation Date and Status columns.

Logs




Press the arrow near particular run to view its logs. To access the Automation Processes Run Event Log, you need to be granted AutomationProcess-READ permission. See (v. 2.2) [Role Permissions](#).

Document Sets / IE doc set (att 2)

Documents ← Back to list

Details Documents **Runs** Upload documents

Filter by text Refresh

Run ID	Created By	Creation Date ↑	Status ↓↑	
IE Document Processor / 1008	Nastassia Burak	18.05.2021 16:09	Completed	
IE Document Processor / 1022	Nastassia Burak	18.05.2021 22:33	Completed	Open run log
IE Document Processor / 1029	Hanna Zaprutskaya	19.05.2021 11:24	Completed	
IE Document Processor / 1038	Hanna Zaprutskaya	19.05.2021 22:13	Completed	

Rows per page: 10 1-4 of 4

© 2021 IBA Group. All rights reserved. v2.1.0-35801/2.1-SNAPSHOT-35802

For detailed information about Automation Processes Run Event Log see (v. 2.2) Automation Process Run.

(v. 2.2) Models

Models module provides users with a single point for ML models management: view all the models registered in the system, train new models and delete existing ones, export and import models.

You can access the module by clicking **Machine Learning Models**. Required Permission: MIModel-READ permission. See [\(v. 2.2\) Role Permissions](#).

- [Export Model](#)
- [Import Model](#)
- [Train Model](#)
- [Model Log](#)
- [Model Status Lifecycle](#)

Columns Description

- Name - the Model name.
- Description - the short description of the Model.
- Version - the Model version.
- Status - the Model status.

The screenshot displays the 'Models' management interface. At the top, there are 'IMPORT MODEL' and 'TRAIN MODEL' buttons. Below them is a search bar labeled 'Filter by text' with a search icon and a magnifying glass. To the right of the search bar are 'Refresh' and 'Delete' buttons, both highlighted with a red box. The main area contains a table with the following data:

Name	Description	Version	Status	Actions
cl_train1		0.1.1	Ready	Download, Export, Open Log, Delete
yl_model_ie		0.0.1	Ready	Download, Export, Open Log, Delete

At the bottom right, there is a pagination control showing 'Rows per page: 10', '1-2 of 2', and navigation arrows. A footer note reads: '© 2021 IBA Group. All rights reserved. v2.1.0-35504/2.1-SNAPSHOT-35477'.

Control icons

- **Refresh** - to pull the last updates from the server.
- **Export ML Model Package** - to export the model as a single package. Required Permission: MIModel-READ. See [\(v. 2.2\) Role Permissions](#).
- **Export Training Config** - to export a ZIP archive with a set of configuration files used for training the model. Required Permission: MIModel-READ. See [\(v. 2.2\) Role Permissions](#).
- **Open Model Log** - to view the model's training log. Required Permission: MIModel-READ. See [\(v. 2.2\) Role Permissions](#).
- **Delete** - to delete the Model. Required Permission: MIModel-DELETE. See [\(v. 2.2\) Role Permissions](#).

Filter by text

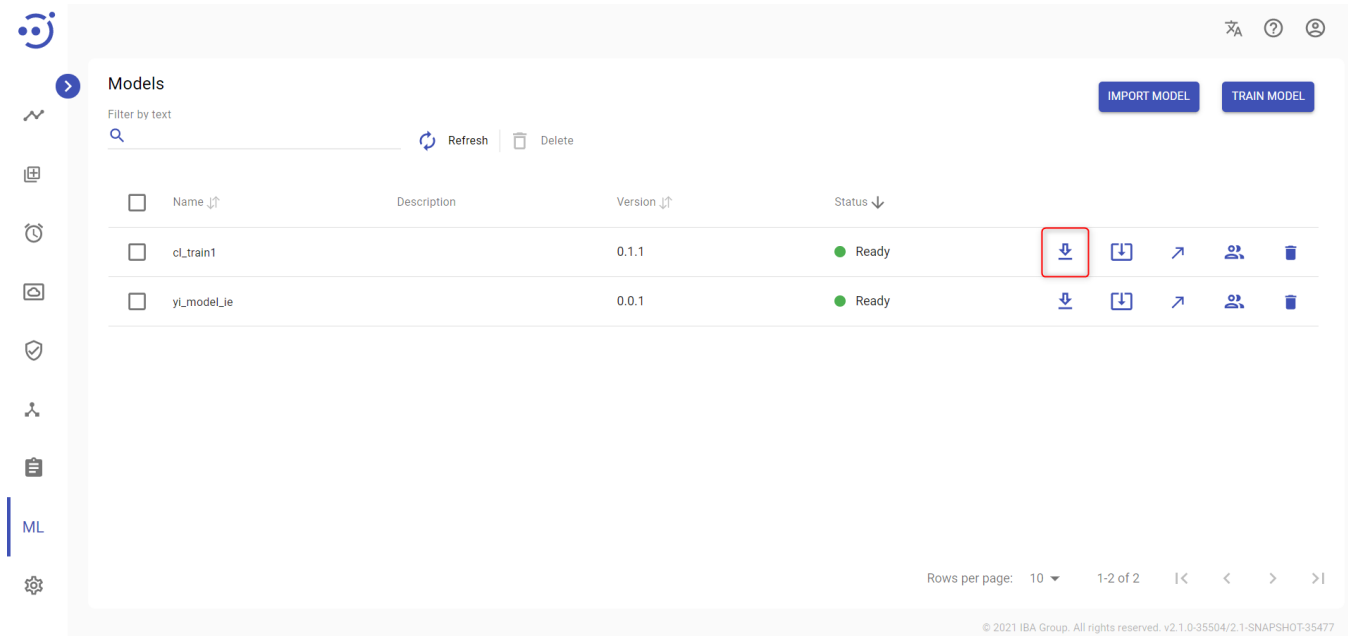
Filtering allows you to search the Model by Name, Description, Version columns.

Sorting

Ascending/descending sorting is allowed for Name, Version, Status columns.

Export Model

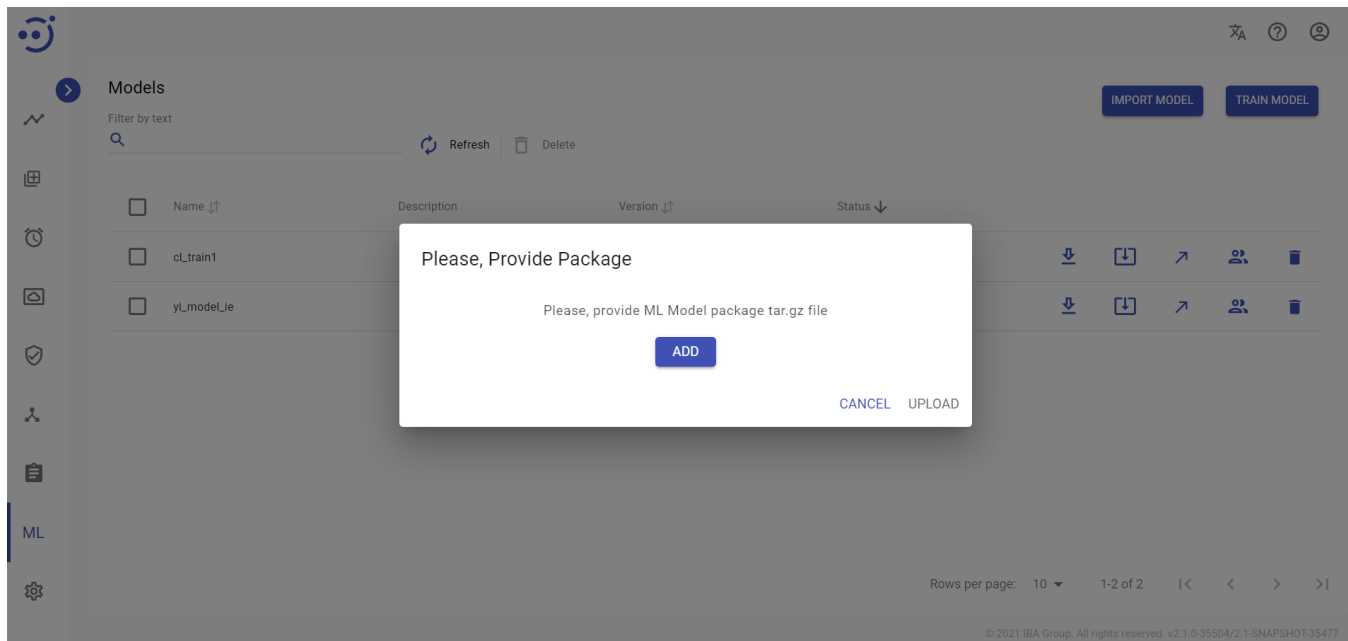
You can export trained model artifacts as an archive file. Click "**Export ML Model package**" icon and **.tar.gz** file will be automatically downloaded:



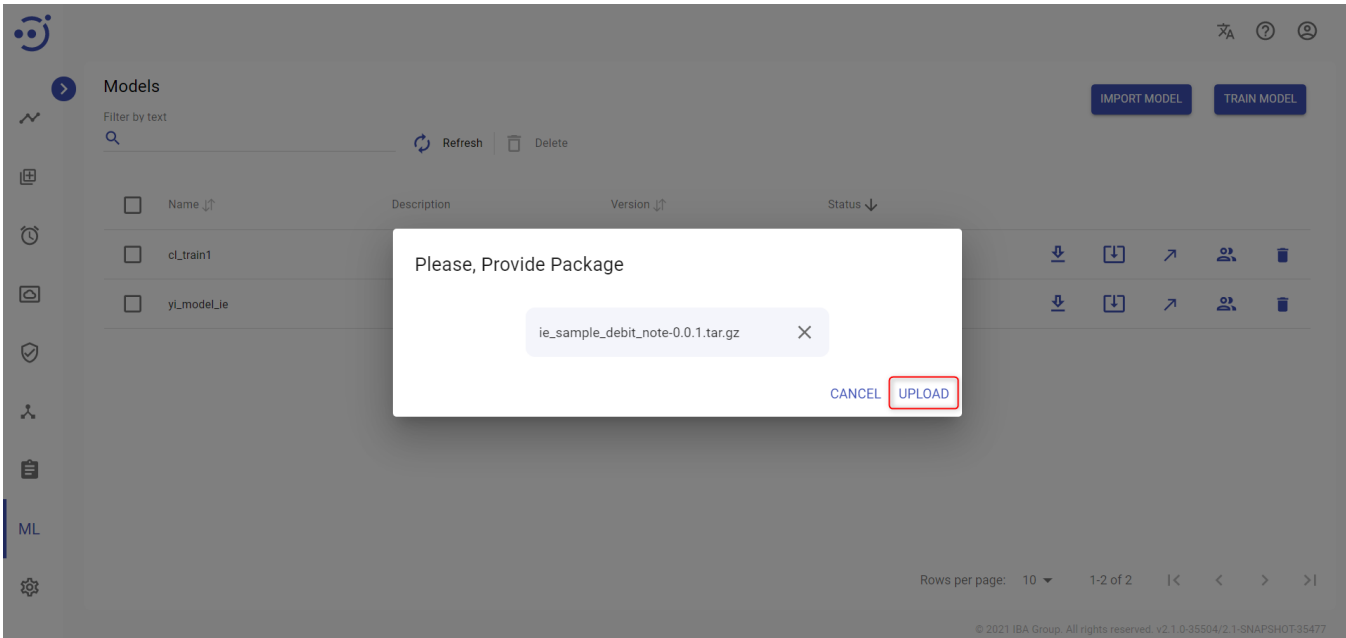
Import Model

EasyRPA allows to import ML models as a package with all the necessary files. To import a model, you need to:

- Click **IMPORT MODEL** button.



Click **ADD** button and select **.tar.gz** file which contains previously exported model artifacts. Then click **UPLOAD** button:



To import a model, you need to be granted MIModel-CREATE permission. See [\(v. 2.2\) Role Permissions](#).

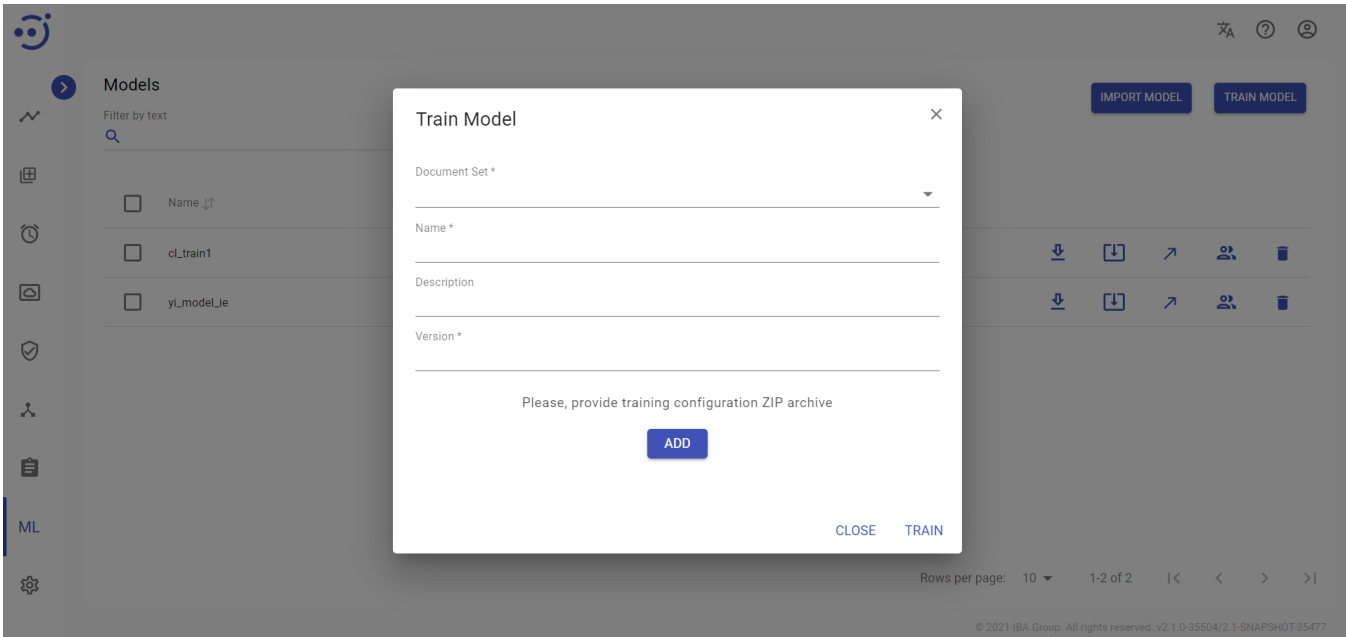
Train Model

EasyRPA allows to train models using tagged data from a Document Set. The ML model is trained, packaged as a single archive, and put into the models repository.

To train a model, you need to:

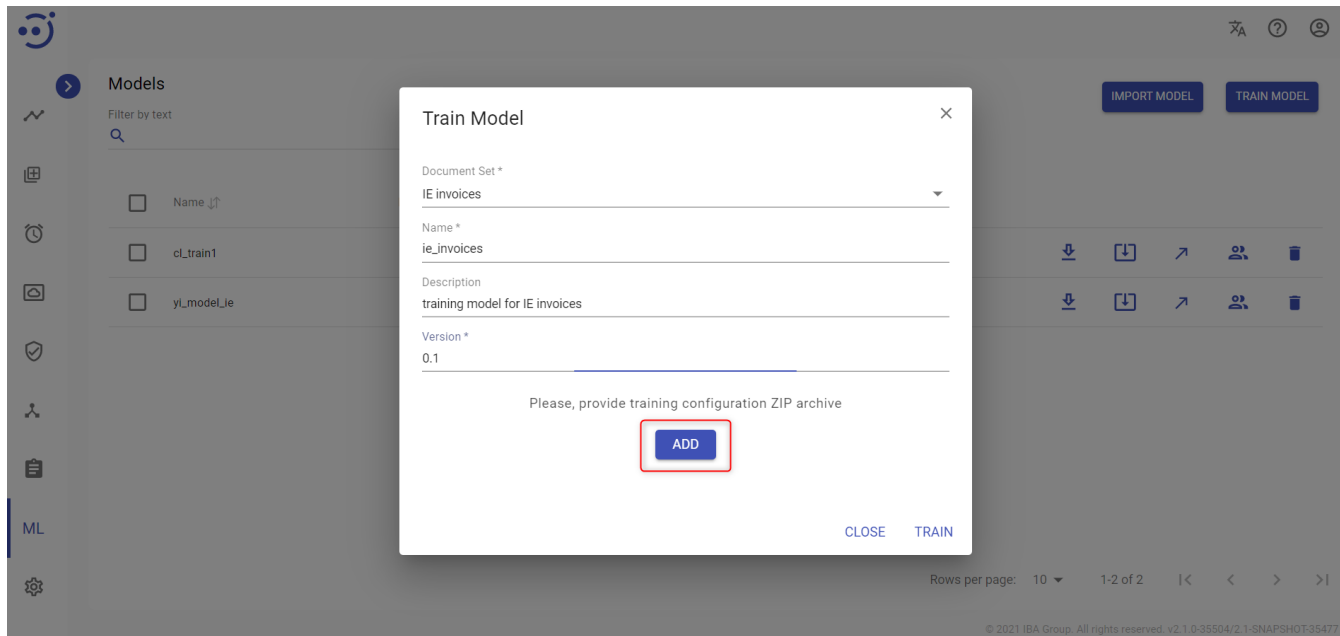
- Click **TRAIN MODEL** button.

The following dialog box appears:

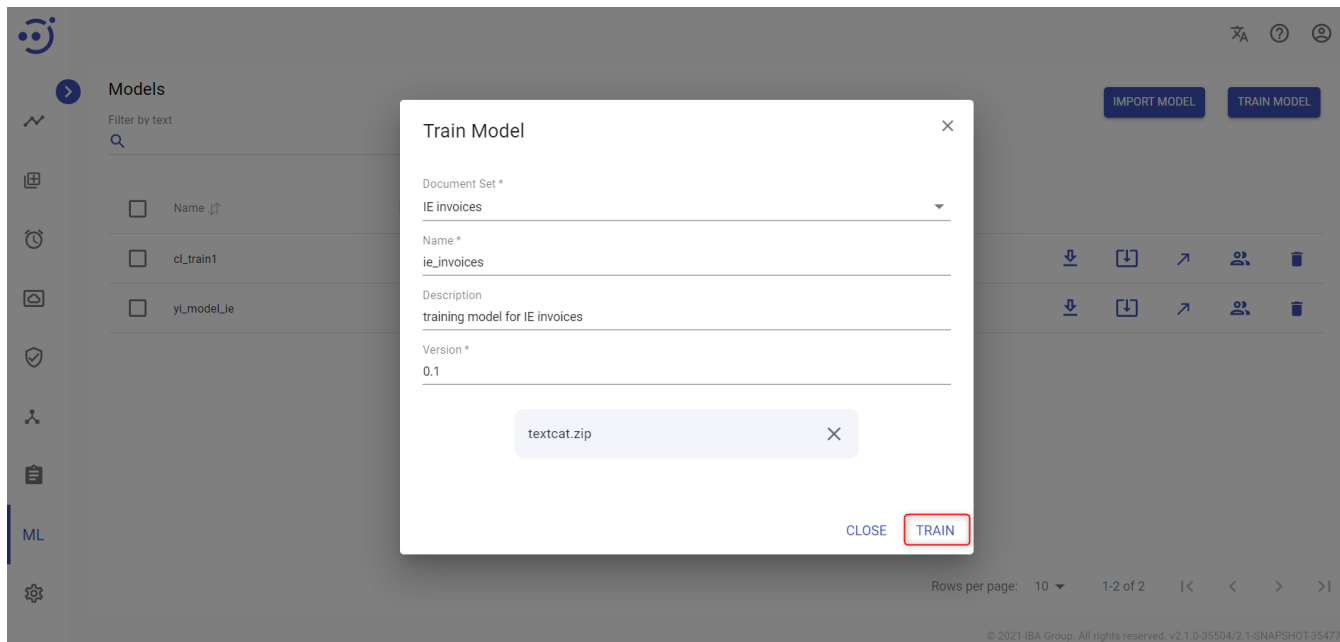


- In the dialog box you need to provide the following details:
 - **Document Set** - the document set with already prepared data for training. See [\(v. 2.2\) Document Sets](#)
 - **Name** - the name of the model to be trained.

- **Description** – the short description.
- **Version** – the model version.
- Click **ADD** button to upload a .zip file with training configurations. A file explorer window is displayed. Select a .zip file to be uploaded into the document set and click **Open**.
- A .zip file with configurations for Classification Models must contain **model.json**
- A .zip file with configurations for Information Extraction Models must contain **model.json** and 3 optional files:
 - **labels.json**
 - **base_model_patterns.json**
 - **post_processing_rules.json**



- Click **TRAIN** to start ML model training.

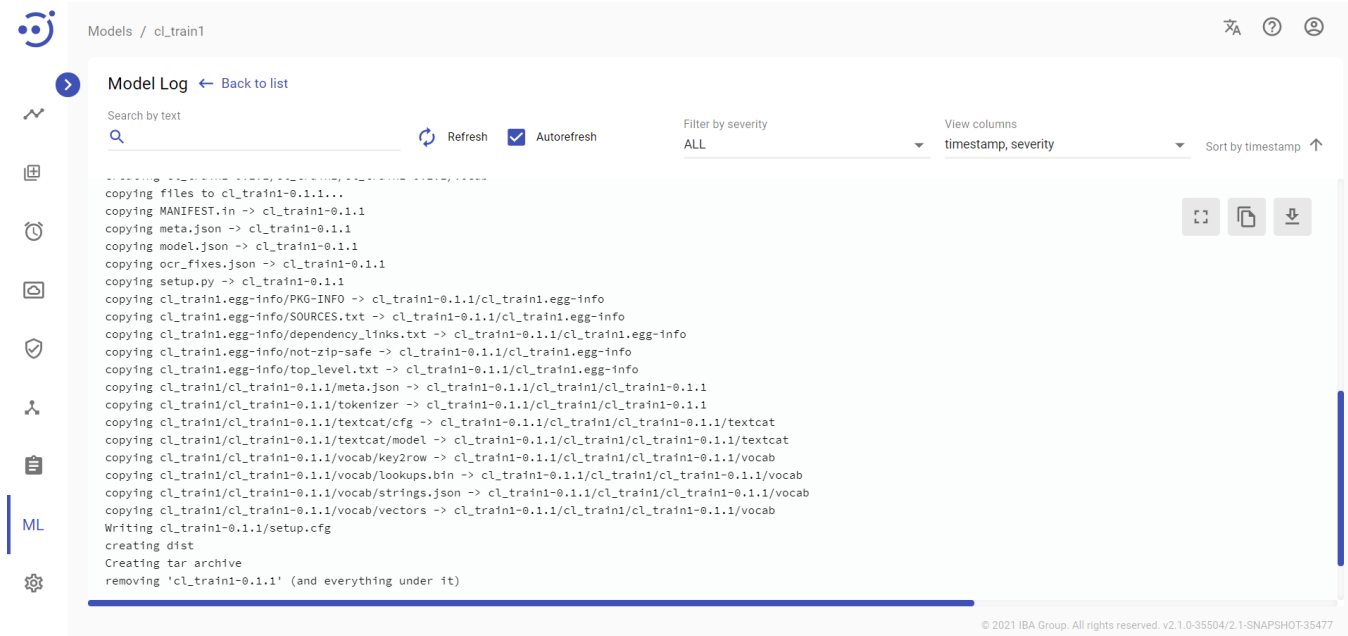


To train a model, you need to be granted MIModel-CREATE permission. See [\(v. 2.2\) Role Permissions](#).

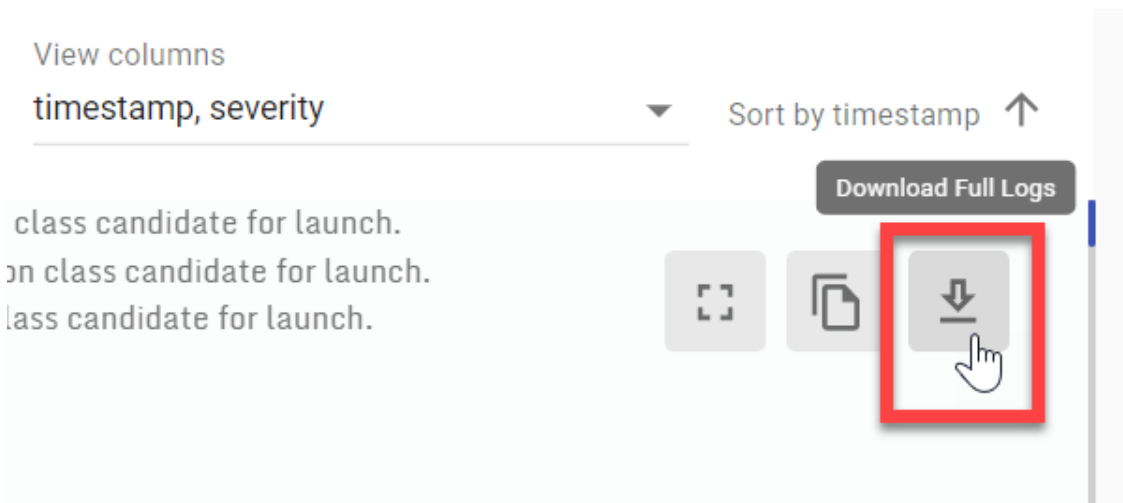
Model Log

The system allows to view the training log for ML models created in the system. To view the log, you need to click **Open Model Log** icon for the specific model.

Model logs page is opened:



To download full logs use Download button:



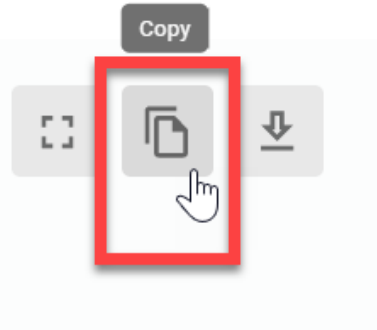
To copy the displayed logs only use Copy button:

View columns

timestamp, severity

Sort by timestamp ↑

n class candidate for launch.
ion class candidate for launch.
lass candidate for launch.



To view a model training log, you need to be granted MIModel-READ permission. See [\(v. 2.2\) Role Permissions](#).

Model Status Lifecycle

- **Ready** - the model is ready to be used for data processing.
- **Submitted for training** - the training process is in the progress.
- **Training failed** - the training process failed, the model is not operational.


Control icons

The following actions can be applied for the model with corresponding statuses:

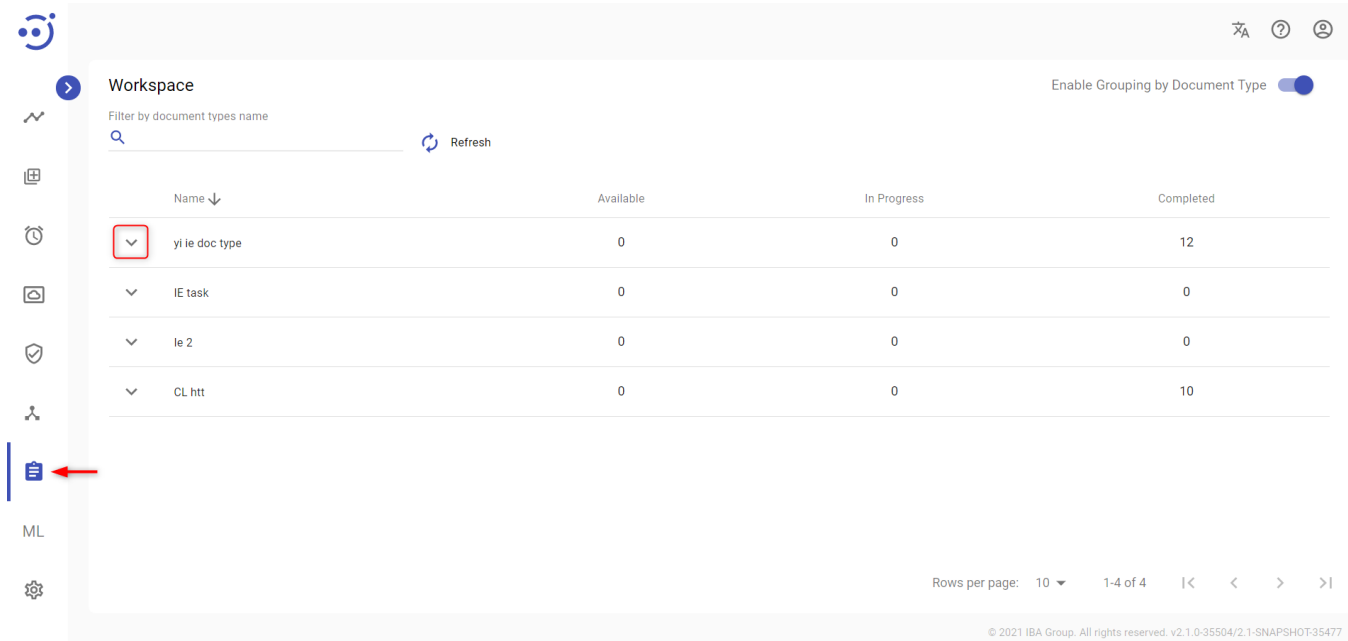
	Export ML Model Package	Export Training Config	Open Model Log	Delete
Ready				
Submitted for training				
Training failed				

(v. 2.2) Workspace

The Workspace is a build-in application for the Easy RPA Control Server that allows users to perform automation process steps that cannot be done by machines and require human involvement, for example, decision-making. In the EasyRPA, such steps are called Human Tasks. The Workspace displays a catalog of the Human Tasks available for execution and grouped by the Document Type.

To see the Human Tasks of the specific Document Type, the user should expand the list by clicking the  symbol near the corresponding Document Type.

To see all tasks not grouped by Document Type switch  near "Enable Grouping by Document Type".



Name	Available	In Progress	Completed
yi ie doc type	0	0	12
IE task	0	0	0
ie 2	0	0	0
CL htt	0	0	10

Columns Description

- **Name** - the Document Type name.
- **Available** - the number of Human Tasks of specific Document Type available for execution.
- **In Progress** - the number of Human Tasks of specific Document Type that a user currently executes.
- **Completed** - the amount of completed Human Tasks of a specific Document Type.

Filtering

- **Filter by document type name** - allows searching for the specific Document Type.
- **Filter by priority** - allows searching for the particular priority of the Human Task.
- **Filter by status** - allows searching the Human Task by its status - Available/In Progress/Completed.

Sorting

Ascending/descending sorting is allowed by the column Name.

Control Icons

- **Refresh**  - to pull the latest changes.

To view human task details, you need to be granted DocumentType-READ permissions. See [\(v. 2.2\) Role Permissions](#).

Expanded View

In the expanded Document Type, the user can see the catalog of Human Tasks:

The screenshot shows a 'Workspace' interface with a table of document tagging tasks. The table is filtered by document types and has a search bar. The table has columns for Name, Priority, Description, Creation Date, Status, Updated Date, and Updated By. A red box highlights the main table content.

Name ↓	Priority ↑↓	Description ↓↑	Creation Date ↓↑	Status ↓↑	Updated Date ↓↑	Updated By ↓↑
8cc8c240-b55b-11ea-898b-6d0fd21db128 DNT64376...	0	Document tagging for 8cc8c240-b55b-11ea-898b-6d0...	15.05.2021 16:14	Completed	15.05.2021 16:15	System Admin
8cc77ef1-b55b-11ea-898b-6d0fd21db128 20190803-...	0	Document tagging for 8cc77ef1-b55b-11ea-898b-6d0f...	15.05.2021 16:14	Completed	15.05.2021 16:15	System Admin
8cc7d7e2-b55b-11ea-898b-6d0fd21db128 20190803-...	0	Document tagging for 8cc7d7e2-b55b-11ea-898b-6d0...	15.05.2021 16:13	Completed	15.05.2021 16:14	System Admin
8cc7d7e1-b55b-11ea-898b-6d0fd21db128 20190803-...	0	Document tagging for 8cc7d7e1-b55b-11ea-898b-6d0...	15.05.2021 16:13	Completed	15.05.2021 16:14	System Admin
8cc7d7e0-b55b-11ea-898b-6d0fd21db128 20190803-...	0	Document tagging for 8cc7d7e0-b55b-11ea-898b-6d0...	15.05.2021 16:13	Completed	15.05.2021 16:14	System Admin
8c8ba3a0-ca1f-11ea-a8b2-cbb447840d76 DNT67351...	0	Document tagging for 8c8ba3a0-ca1f-11ea-a8b2-cbb...	15.05.2021 16:50	Completed	15.05.2021 16:55	System Admin
8c8a9230-ca1f-11ea-a8b2-cbb447840d76 DNT66502...	0	Document tagging for 8c8a9230-ca1f-11ea-a8b2-cbb...	15.05.2021 16:50	Completed	15.05.2021 16:55	System Admin



Columns Description

- **Name** - the name of the document.
- **Priority** - the priority (0-4) with which the Automation Process will process the Human Tasks.
- **Description** - a short description of the document.
- **Creation Date** - the date and time of the document creation.
- **Status** - the current status of the document - Available/In Progress/Completed.
- **Updated Date** - the date and time of the document updating.
- **Updated By** - the user who edited the document.

Sorting

Ascending/descending sorting is allowed by the columns: Name, Priority, Description, Creation Date, Status, Updated Date, Updated By.

Control icons

- **Start working**  - to navigate to the selected document. Required Permission: DocumentType-READ. See (v. 2.2) Role Permissions.
- **Reset**  - to reset all filters. Required Permission: DocumentType-READ. See (v. 2.2) Role Permissions.


(v. 2.2) Process Human Task

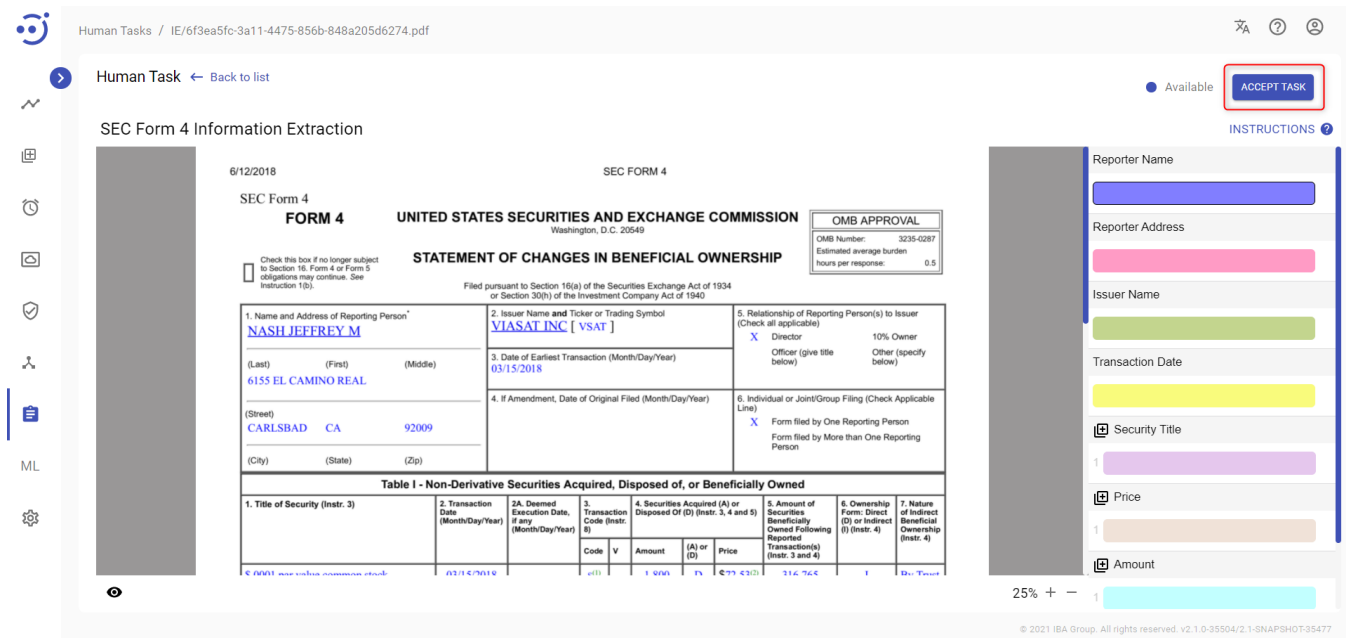
The EasyRPA Control Server supplies several standard Human Task Types:

- [Sample Form Task](#)
- [Sample Classification Task](#)
- [Sample Information Extraction Task](#)

General WorkFlow

The general procedure of working with the Human Tasks is as follows.


- Select the document to be processed by clicking the **Start working**  icon for the corresponding document.
- Click **Accept task** button in the upper right corner. The task status is changed from *Available* to *In Progress*.



Human Tasks / IE/6f3ea5fc-3a11-4475-856b-848a205d6274.pdf

Human Task [← Back to list](#)

Available **ACCEPT TASK**

INSTRUCTIONS 

SEC Form 4 Information Extraction

6/12/2018 SEC FORM 4

FORM 4 UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

OMB APPROVAL
OMB Number: 3235-0287
Estimated average burden hours per response: 0.5

Check this box if no longer subject to Section 16, Form 4 or Form 5 (obligations may continue. See instruction 1(b)).

Filed pursuant to Section 15(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person* NASH JEFFREY M (Last) (First) (Middle) 6155 EL CAMINO REAL (Street) CARLSBAD CA 92009 (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol VIASAT INC [VSAT]	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director <input type="checkbox"/> Officer (give title below) <input type="checkbox"/> Other (specify below) 10% Owner
3. Date of Earliest Transaction (Month/Day/Year) 03/15/2018	4. If Amendment, Date of Original Filed (Month/Day/Year)	6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned


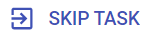


1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)		5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Beneficial Ownership (Instr. 4)	
			Code	V	Amount	(A) or (D)				Price
	03/15/2018				1,000	1%	€79,430	214,764	I	Direct

Reporter Name
Reporter Address
Issuer Name
Transaction Date
Security Title
Price
Amount

25% + -

© 2021 IBA Group. All rights reserved. v2.1.0-35504/2.1-SNAPSHOT-35477

On the Human Task screen, the user has several available options:

- Process Human Task depending on the Human Task Type (a, b, c) and submit the answers by clicking the **SEND**  button. The task status is changed from *In Progress* to *Completed*.
 - Fill in the suggested form for Sample Form Task Type.
 - Define the correct class for the Sample Classification Task Type.
 - Tag the document for the Sample Information Extraction Task Type.
- Skip the current task by clicking the **SKIP TASK**  button.
- Save the current changes in the Human Task by clicking the **SAVE**  button.
- Accept the next task automatically by switching the **Auto accept next**  radio button. If the radio button is switched off, the Human Task will be closed after clicking 'Send' or 'Skip task'. If the radio button is on - the user is redirected to the next task in the queue.

Human Tasks / IE/6f3ea5fc-3a11-4475-856b-848a205d6274.pdf

Human Task ← Back to list In Progress SAVE SEND Auto accept next SKIP TASK

SEC Form 4 Information Extraction

6/12/2018 SEC FORM 4

FORM 4 UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

OMB APPROVAL
OMB Number: 3235-0287
Estimated average burden hours per response: 0.5

Check this box if no longer subject to Section 16, Form 4 or Form 5 obligations may continue. See instruction 1(b).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person* <u>NASH, JEFFREY M</u> (Last) (First) (Middle) 6155 EL CAMINO REAL (Street) CARLSBAD CA 92009 (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>VIA SAT INC [VSAT]</u>	3. Date of Earliest Transaction (Month/Day/Year) <u>03/15/2018</u>	4. If Amendment, Date of Original Filed (Month/Day/Year)	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner <input type="checkbox"/> Officer (give title below) Other (specify below)	6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person
---	--	---	--	--	--

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)		5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)		
				Code	V				Amount	(A) or (D)
	03/15/2018			1	900	15	€77 €3.05	716.564	I	Direct

INSTRUCTIONS ?

Reporter Name

Reporter Address

Issuer Name

Transaction Date

Security Title

Price

Amount

25% + -

© 2021 IBA Group. All rights reserved. v2.1.0-35504/2.1-SNAPSHOT-35477

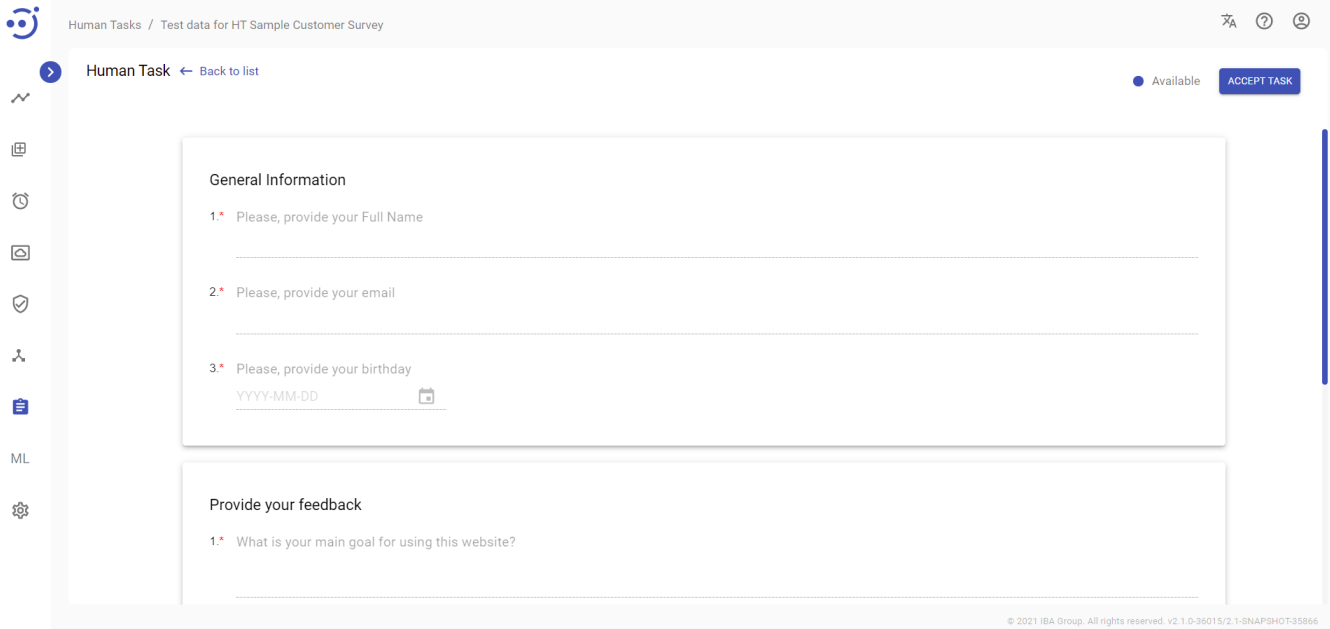
⚠ The control buttons are generally determined by the Human Task author and can be customized depending on the task. The best practice is to add the elaborated instruction on how to manage the Human Task. The Instructions are available by clicking the **INSTRUCTIONS ?** button at the top right corner.

To view human task details, you need to be granted HumanTaskType-READ permissions. To accept a human task and start working on it, you need to be granted DocumentType-ACTION permission. See (v. 2.2) [Role Permissions](#).

Sample Form Task

The Form Task allows conducting surveys and assumes that the user fills out a customizable form. The Form Task supports the next set of fields:

- Simple text - single-line input field (type *text*).
- Multiline text - multiline input field (type *textarea*).
- Date picker (type *date*).
- Radio buttons - elements of a single choice (type *radio*).
- Select dropdown lists - a single choice from the list of values, better long list to choose from (type *select*).
- Checkbox for a multiple choice - multiple choices from the list of values (type *checkbox*).



To process the Sample Form Task, the user needs to:

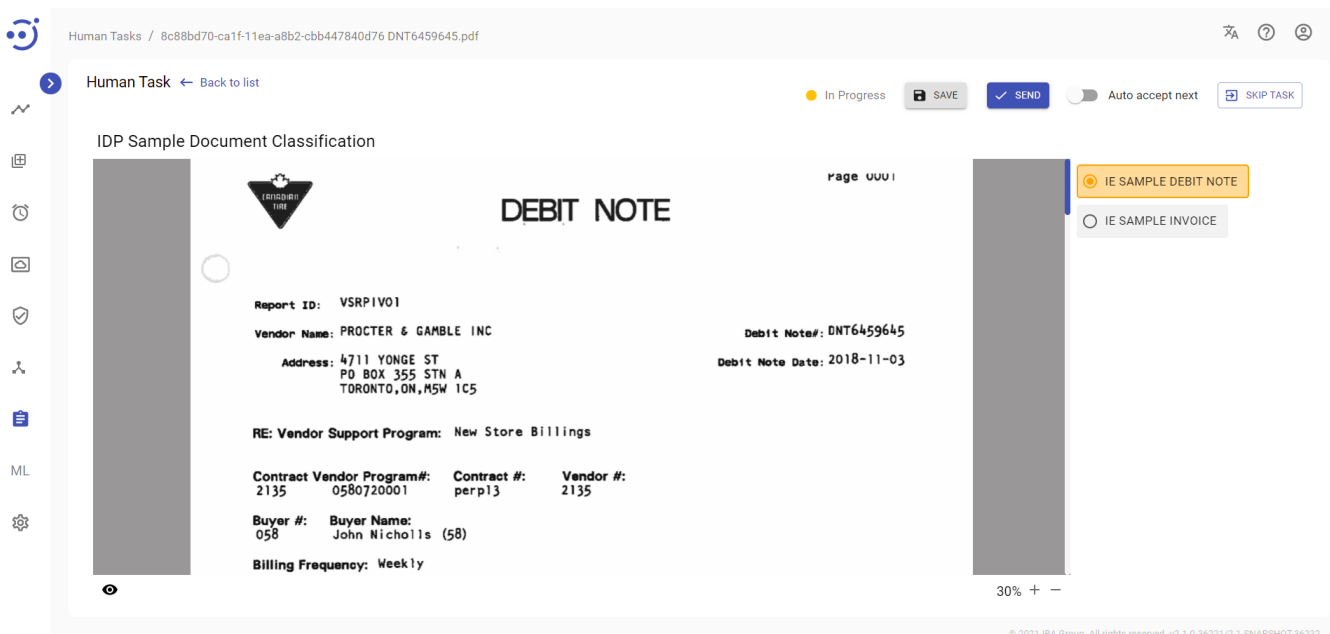
- **Accept** the required task.
- **Fill in** all the required fields/ answer all the required questions.
- **Submit** the answer by clicking the Send button.

Sample Classification Task

The Classification Task allows document classification by assigning them one or more categories (in Machine Learning - classes). The Classification Task can be configured for *Single-Label Classification* (when one document belongs to only one class) or *Multi-Label Classification* (when one document may belong to several classes at a time).

The Classification Task can be utilized for:

- Saving and processing category classified by a human in the automation process.
- Collecting Training Set for Machine Learning model training.
- Verification of data extracted by Machine Learning model.



To process the Sample Form Task, the user needs to:

- **Accept** the required task.
- **Classify** the document into one or more categories (*Single-Label* and *Multi-Label Classification*, respectively).
- **Submit** the answer by clicking the Send button.

Sample Information Extraction Task

Information extraction (IE) is a process of extracting structured information (or key facts) from unstructured and/or semi-structured documents (invoices, claims, dividend news, etc.).

The Information Extraction Task can be utilized for:

- Saving and processing data extracted by a human in the automation process.
- Collecting Training Set for Machine Learning model training.
- Verification of data extracted by Machine Learning model.

The screenshot displays a 'Human Task' interface for processing a SEC Form 4 document. The document is titled 'SEC Form 4 INFORMATION EXTRACTION' and is dated 6/12/2018. The form is for 'NASH JEFFREY M' reporting on 'VIASAT INC [VSAT]'. The document includes an OMB APPROVAL box and a 'STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP' section. Below this is 'Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned'. The interface also features a sidebar with navigation icons and a right-hand panel with extracted data fields and a table of securities.

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned								
1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V				
\$,000 par value common stock	03/15/2018		S	V	1,800	D	\$72.53	By Trust

To process the Sample Form Task, the user needs to:

- **Accept** the required task.
- **Tag** the document carefully.
- **Submit** the answer by clicking the Send button.

(v. 2.2) Tagging Overview

The tagging is a business process allowing users to label the original document to prepare data sets for the **Information Extraction ML** model.

- [Tagging Interface](#)
- [Tagging Tools](#)
- [Start Tagging Process](#)

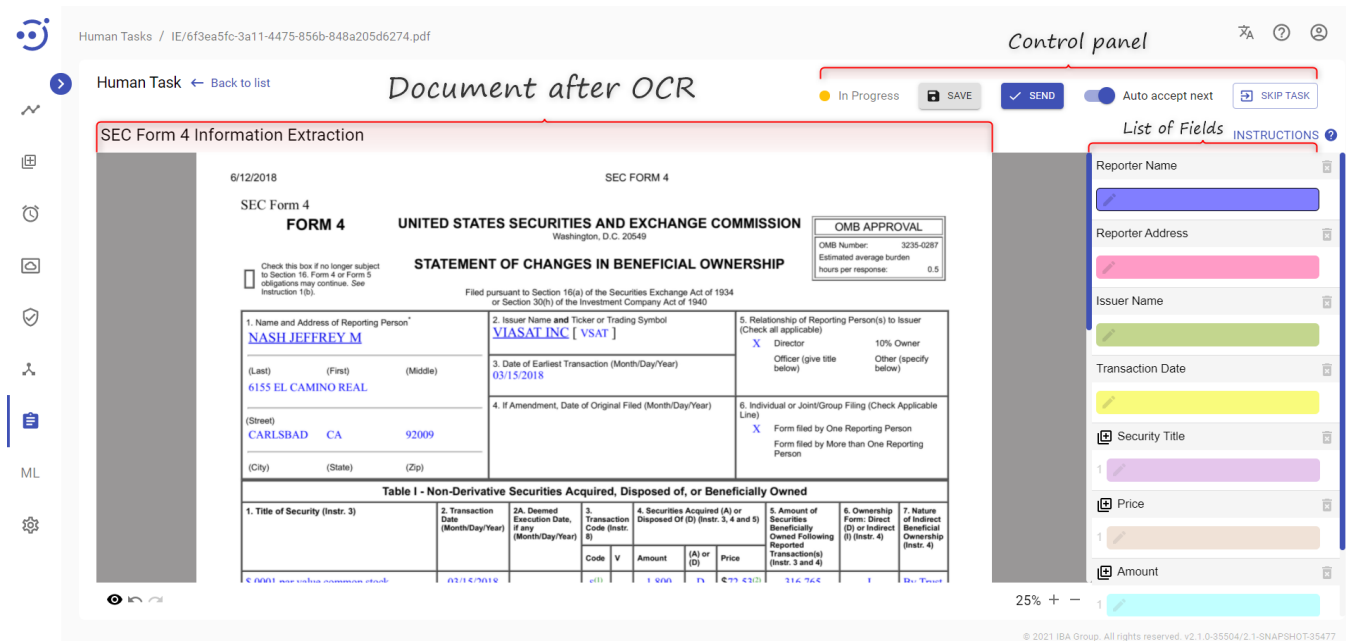
When tagging, it's highly recommended to stick to the following order of steps:

1. Find the **required task** in the Workspace.
2. Select the **Start working** button to open it.
3. Review the **list of fields** on the right panel.
4. Review the **original document**.
5. **Accept the task** to start tagging.
6. Find all the **available fields** in the document and tag them.
7. Review the **tagged document**, making sure there are no fields omitted.
8. Select the **Send** button.

Tagging Interface

The interface is simple, but you need to know every part of it to make the tagging process effortless. The Workspace interface has three main areas:

- the window where the **document after OCR** is displayed.
- the panel with the **list of fields** for extraction.
- the **control panel** where the main task control icons are located. See [Process Human Task](#)



Tagging Tools

To tag the document, you may use the following tagging tools.

Tool	Displayed	Description
Multiple field		Indicator of the field with multiple values.
Correct		Correct the data value.

Append	+	Add a tag to the data-value.
Remove	X	Remove the data-value/tag.
Remove all		Remove all data-values/all tags of the field.
Drag-and-drop		Use drag-and-drop to change data-values positions.
Cancel the last action		Functions like Ctrl+Z to undo the previous keystroke.
OCR View		Switch to the OCR view.
Zoom in/zoom out	31% + -	Change the viewable scale.

On the following screenshot, you can see how those tagging tools look in the interface.

The screenshot shows the 'SEC Form 4 Information Extraction' interface. The main form is titled 'SEC FORM 4 UNITED STATES SECURITIES AND EXCHANGE COMMISSION STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP'. It contains fields for Reporter Name (NASH JEFFREY M), Reporter Address (6155 EL CAMINO REAL), Issuer Name (VIASAT INC [VSAT]), and Transaction Date (03/15/2018). Below the form is 'Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned' with columns for Title of Security, Transaction Date, Transaction Code, Amount, Price, and Ownership Form. The interface includes a sidebar with navigation icons and a top navigation bar with 'Human Task', 'Back to list', 'In Progress', 'SAVE', 'SEND', 'Auto accept next', and 'SKIP TASK' buttons. Red callouts highlight various tagging tools: 'Correct' (pencil icon), 'Remove all' (trash can icon), 'Remove' (X icon), 'Append' (+ icon), 'Multiple Field' (grid icon), 'Drag-and-Drop' (grid icon), 'Zoom in/Zoom' (25% + -), 'OCR View' (eye icon), and 'Cancel the last action' (undo icon).

OCR View

The OCR View is available at the Human Task by clicking the icon. The OCR View allows you to see the confidence of recognition of the different document regions. By setting the OCR confidence threshold, it is possible to check what regions are poorly recognized, or not recognized at all.

In the following screenshot, you can see an example of the OCR confidence set for 94%. Regions that recognized with less confidence are highlighted in red.

Human Tasks / IE/6f3ea5fc-3a11-4475-856b-848a205d6274.pdf

Human Task ← Back to list In Progress SAVE SEND Auto accept next SKIP TASK

SEC Form 4 Information Extraction

OCR confidence 94%

INSTRUCTIONS ?

Reporter Name: NASH JEFFREY M

Reporter Address: 6155 EL CAMINO REAL CARL

Issuer Name: VIASAT INC [VSAT]

Transaction Date: 03/15/2018

Security Title: \$,0001 par value common

Price: \$72.53?

© 2021 IBA Group. All rights reserved. v2.1.0-35801/2.1-SNAPSHOT-35802

You can also check the OCR confidence of the particular region by triple-click on it:

Human Tasks / IE/6f3ea5fc-3a11-4475-856b-848a205d6274.pdf

Human Task ← Back to list In Progress SAVE SEND Auto accept next SKIP TASK

SEC Form 4 Information Extraction

OCR confidence 94%

INSTRUCTIONS ?

Reporter Name: JEFFREY

Reporter Address: 6155 EL CAMINO REAL (Stre

Issuer Name: VIASAT INC [VSAT]

Transaction Date: 03/15/2018

Security Title: \$,0001 par value common

Price: \$72.53?


© 2021 IBA Group. All rights reserved. v2.1.0-35801/2.1-SNAPSHOT-35802

Start Tagging Process

The process of tagging a field is simple. You need to select the necessary field at the right panel and then highlight the required value in the OCR'd document.

When you find a text chunk that corresponds to one of the required fields:

1. Click at the required field on the right panel.
2. Drag the mouse over the corresponding chunk of text.
3. Once the field is tagged, the text chunk will be highlighted in that tag's color, and the corresponding value will appear in the field on the right panel.

Reporter Name 

1. Name and Address of Reporting Person*
NASH JEFFREY M


1. Name and Address of Reporting Person*
NASH JEFFREY M

Reporter Name 

Combinations to highlight the text:

- **Double click** - select one word.

 Note the highlighted text chunk is what the model will see, and the data-value is what the user will receive as an output.

(v. 2.2) Administration

The Administration section ensures the creation and customization of the Human Task Types, assigning user roles and combining them into groups, configuring the Control Server settings, providing license management and audit function of the Easy RPA Control Server.

This section contains the following modules:

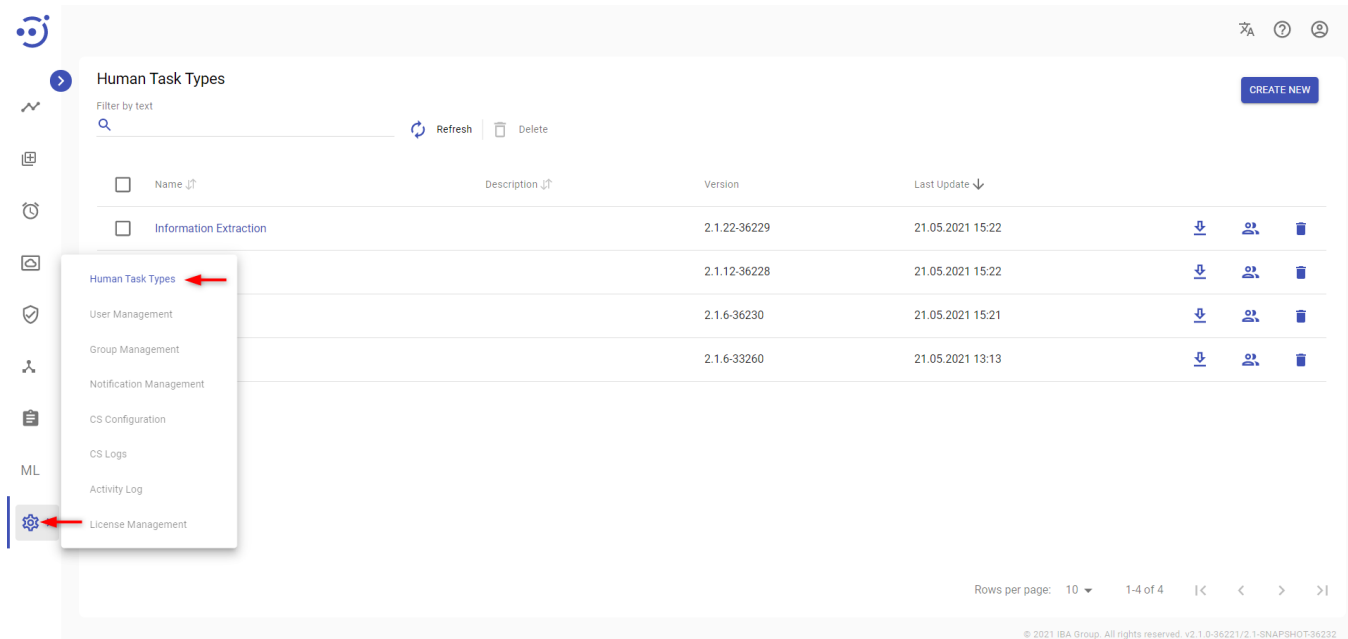
- [\(v. 2.2\) Human Task Types](#)
 - [\(v. 2.2\) Document Types](#)
 - [\(v. 2.2\) Document Type Settings JSON Structure](#)
 - [\(v. 2.2\) Playground](#)
- [\(v. 2.2\) User Management](#)
- [\(v. 2.2\) Group Management](#)
 - [\(v. 2.2\) Role Permissions](#)
 - [\(v. 2.2\) Security Access](#)
- [\(v. 2.2\) Notification Management](#)
- [\(v. 2.2\) Control Server Configuration](#)
- [\(v. 2.2\) Control Server Logs](#)
- [\(v. 2.2\) Activity Log](#)
- [\(v. 2.2\) License Management](#)

(v. 2.2) Human Task Types

- [Create a new Human Task Type](#)
- [Edit an existing Human Task Type](#)

The Human Task Types module is a standalone application for the Easy RPA Control Server designed as a Human Tasks view editor. The Human Task Type defines the input form of the Human Task in the Workspace. With the help of the Human Task Type, the developer can customize the Human Task on Workspace according to the customer's expectations: to give the user interface a preferable appearance and process input data of different formats.

To navigate to the Human Task Types module and view the list of task types, you need to be granted HumanTaskType-READ permission. See [\(v. 2.2\) Role Permissions](#).



Columns Description

- **Name** - the Human Task Type name.
- **Description** - a short description of the Human Task Type.
- **Version** - the Human Task Types version.
- **Last Update** - the last date and time when the Human Task Type was changed.





Filter by text

Filtering allows searching for the Human Task Type by the columns Name, Description, Version.

Sorting

Ascending/descending sorting is allowed by the columns: Name, Description, Last Update.

Control Icons

- **Download application**  - to download a ZIP archive with all the applicable Human Task Type configurations. Required permission: HumanTaskType-READ. See [\(v. 2.2\) Role Permissions](#).
- **Delete**  - to delete the corresponding Human Task Type. Required permission: HumanTaskType-DELETE. See [\(v. 2.2\) Role Permissions](#).
- **Refresh**  - to pull the latest changes for the Human Task Types.
- **Security Access**  - to manage group access for the corresponding Document Type. See [\(v. 2.2\) Security Access](#).

Create a new Human Task Type

To create a new Human Task Type, you need to:

- Navigate to the **Administration Human Task Types** module.
- Click **Create New**.

The screenshot shows the 'Human Task Types' management interface. At the top right, there is a 'CREATE NEW' button highlighted with a red box. Below the header, there is a search filter and a table with the following data:

Name	Description	Version	Last Update	
Information Extraction		2.1.22-36229	21.05.2021 15:22	[Download] [Users] [Delete]
Classification		2.1.12-36228	21.05.2021 15:22	[Download] [Users] [Delete]
Form		2.1.6-36230	21.05.2021 15:21	[Download] [Users] [Delete]
123		2.1.6-33260	21.05.2021 13:13	[Download] [Users] [Delete]

At the bottom right, there is a 'Rows per page: 10' dropdown and a '1-4 of 4' indicator.

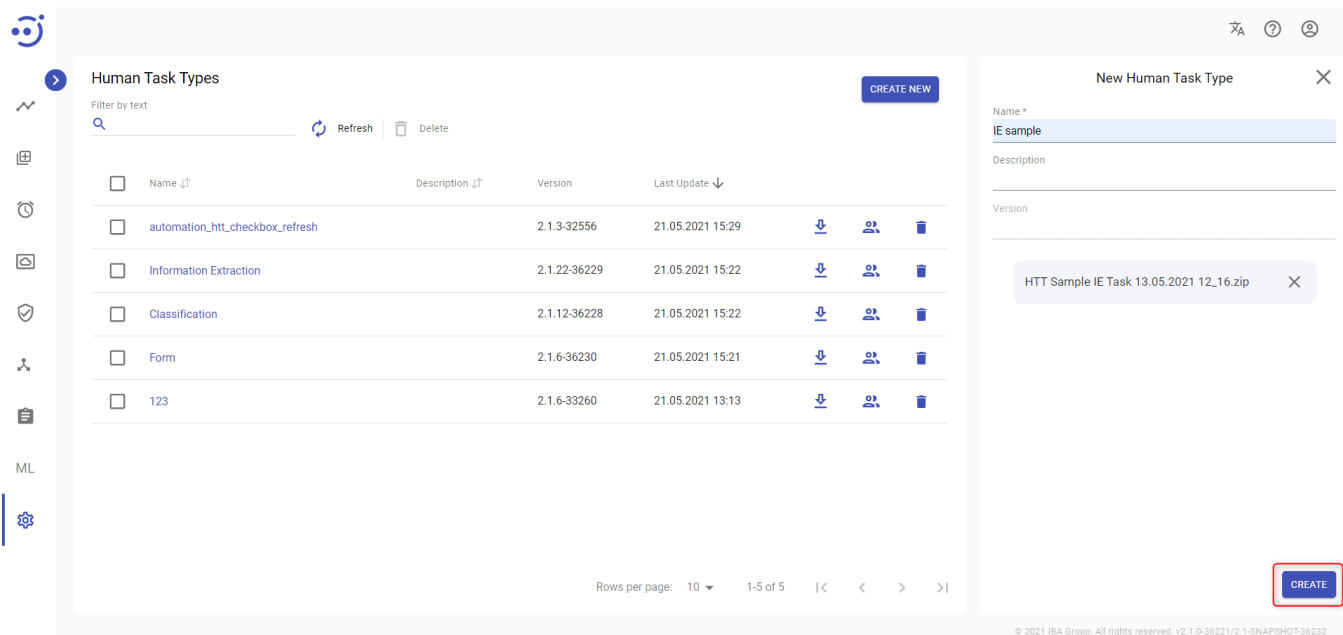
- Fill in Human Task Type details:
 - a unique **name** to distinguish the Human Task Type (required).
 - a short **description** of the Human Task Type functionalities (optional).

The screenshot shows the 'Human Task Types' management interface with a 'New Human Task Type' modal open. The modal has a 'Name' field with the value 'IE sample', a 'Description' field, and a 'Version' field. At the bottom of the modal, there is an 'ADD' button highlighted with a red box and a message 'Please, provide ZIP file*'. A 'CREATE' button is visible at the bottom right of the modal. The table in the background now includes a new entry:

Name	Description	Version	Last Update	
automation_htt_checkbox_refresh		2.1.3-32556	21.05.2021 15:29	[Download] [Users] [Delete]
Information Extraction		2.1.22-36229	21.05.2021 15:22	[Download] [Users] [Delete]
Classification		2.1.12-36228	21.05.2021 15:22	[Download] [Users] [Delete]
Form		2.1.6-36230	21.05.2021 15:21	[Download] [Users] [Delete]
123		2.1.6-33260	21.05.2021 13:13	[Download] [Users] [Delete]

At the bottom right, there is a 'Rows per page: 10' dropdown and a '1-5 of 5' indicator.

- Click **Add** to upload a ZIP file with the required Human Task Type configuration. Navigate to <http://10.224.0.50/htt/> to find the latest build version of the appropriate Human Task Type.

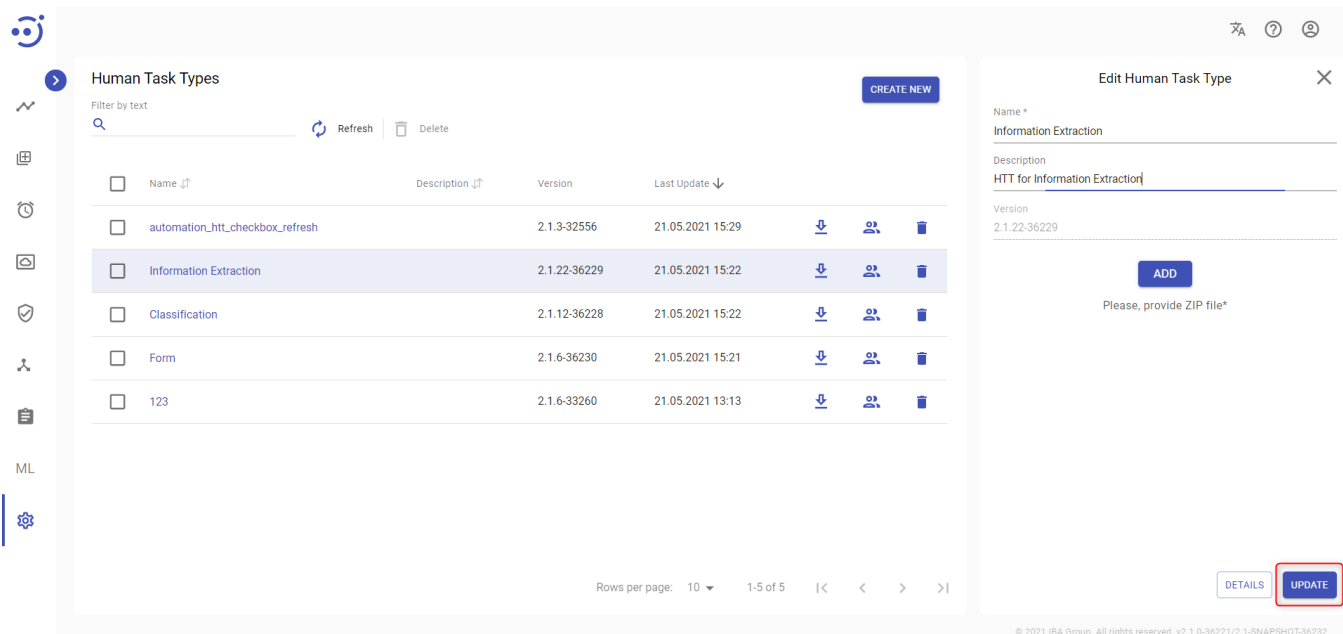


- Click **Create**.

To create a new human task type, you need to be granted HumanTaskType-CREATE permission. See (v. 2.2) [Role Permissions](#).

Edit an existing Human Task Type

Key information about a particular Human Task Type is available at the pop-up panel at the right by clicking on the corresponding row with the Human Task Type. To access the Edit Human Task Type panel, you need to be granted HumanTaskType-UPDATE permissions. See (v. 2.2) [Role Permissions](#).



You can edit the displayed fields (or overwrite the ZIP file by clicking **Add** button) and save the result by clicking the **Update** button. Required Permission: HumanTaskType-UPDATE. See (v. 2.2) [Role Permissions](#).

The pop-up panel contains the following information:

- **Name** - the Human Task Type name.
- **Description** - a short description of the Human Task Type.
- **Version** - the Human Task Types version, which will be updated if a new ZIP file is uploaded.

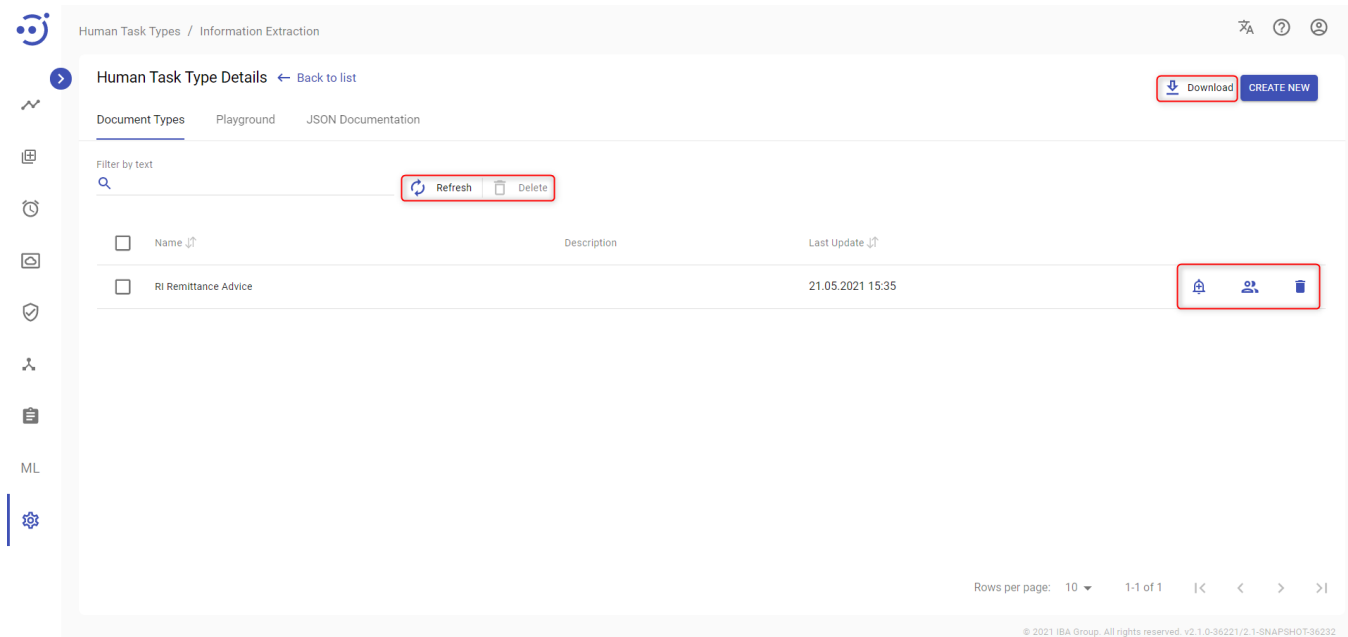
For more information about the Human Task Type - click **Details**. Required Permission: HumanTaskType-READ. See [\(v. 2.2\) Role Permissions](#).

(v. 2.2) Document Types

- [Create a new Document Type](#)
- [Edit an existing Document Type](#)
- [Security access to Document Type](#)
- [Manage Notifications](#)

The Document Type defines the output form of the Human Task in the Workspace: the fields that should be retrieved from the document, and additional settings that are used by the Human Task to display the input document.

To access Document Types tab and view a list of document types, you need to be granted DocumentType-READ permissions. See [\(v. 2.2\) Role Permissions](#).



Columns Description

- **Name** - the Document Type name.
- **Description** - a short description of the Document Type.
- **Last Update** - the last date and time when the Document Type was changed.

Filter by text

Filtering allows searching for the Document Type by the columns: Name, Description.

Sorting

Ascending/descending sorting is allowed by the columns: Name, Last Update.

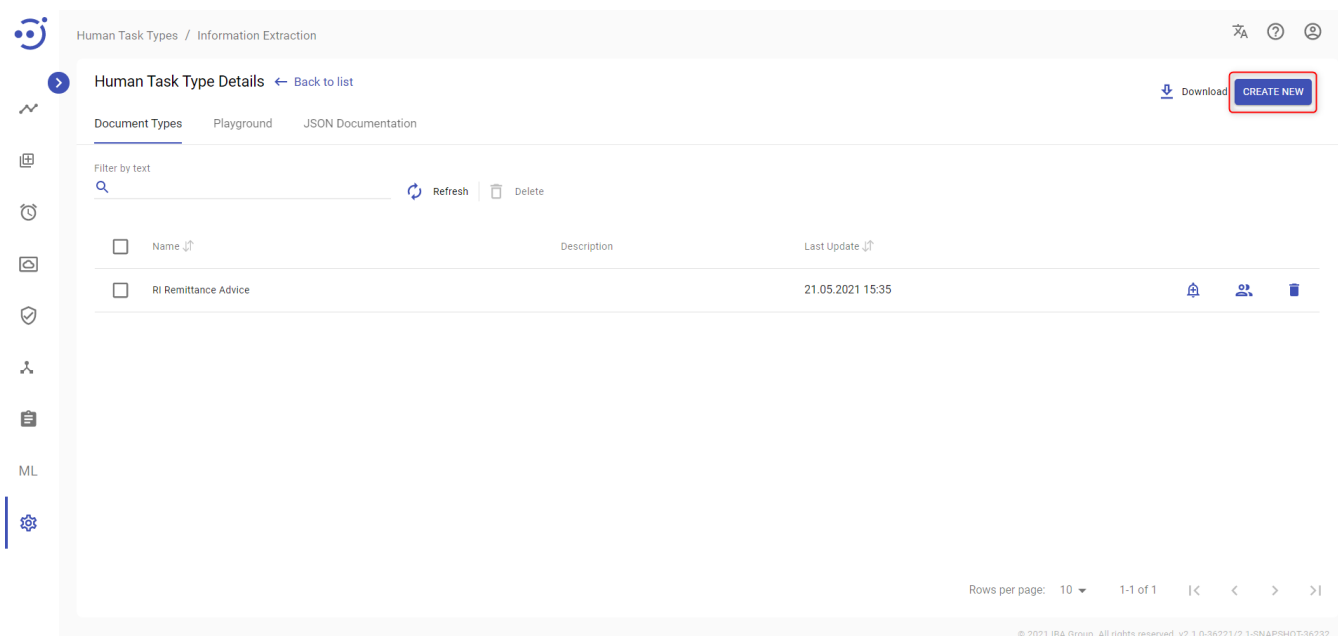
Control Icons

- **Manage Notifications** - See [\(v. 2.2\) Notification Management](#).
- **Security Access** - to manage group access for the corresponding Document Type. See [\(v. 2.2\) Security Access](#).
- **Delete** - to delete the corresponding Document Type. Required Permission: DocumentType-DELETE. See [\(v. 2.2\) Role Permissions](#).
- **Download application** - to download a ZIP archive with all the applicable configurations of the current Human Task Type.
- **Refresh** - to pull the latest changes for the Document Types.

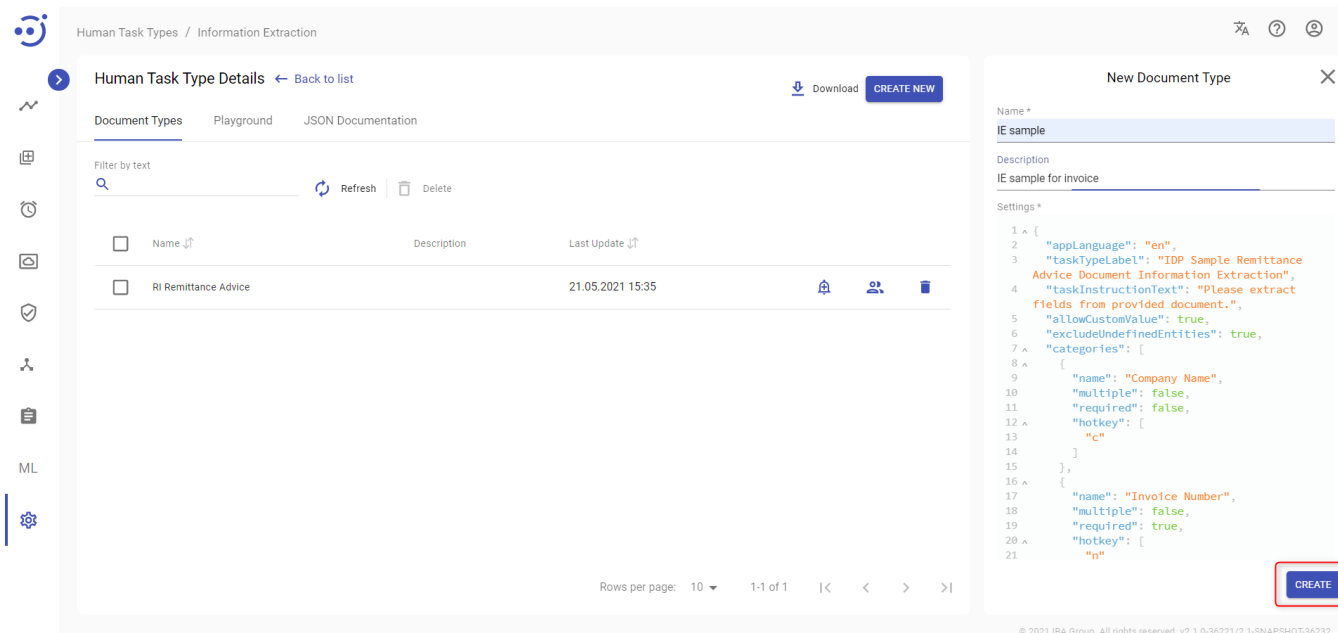
Create a new Document Type

To create a new Document Type, you need to:

- Navigate to the **Administration Human Task Types** module.
- Navigate to the **Human Task Type Details** of the corresponding Human Task Type.
- Click **Create New**.



- Fill in Document Type details:
 - a unique **name** to distinguish the Document Type (required).
 - a short **description** of the Document Type functionalities (optional).
- Add Settings JSON (required). For more details see [\(v. 2.2\) Document Type Settings JSON Structure](#).



- Click **Create**.

To create a new document type, you need to be granted DocumentType-CREATE permission. See [\(v. 2.2\) Role Permissions](#).

Edit an existing Document Type

Key information about a particular Document Type is available at the pop-up panel at the right by clicking on the corresponding row with the Document Type. To access the Edit Document Type panel, you need to be granted DocumentType-UPDATE permission. See [\(v. 2.2\) Role Permissions](#).

Human Task Types / Information Extraction

Human Task Type Details [← Back to list](#) Download CREATE NEW

Document Types Playground JSON Documentation

Filter by text Refresh Delete

Name	Description	Last Update			
<input type="checkbox"/> IE sample	IE sample for invoice	21.05.2021 15:57			
<input type="checkbox"/> RI Remittance Advice		21.05.2021 15:35			

Rows per page: 10 1-2 of 2

© 2021 IBA Group. All rights reserved. v2.1.0-36221/2.1-SNAPSHOT-36232

You can edit the displayed fields and Settings JSON, and save the result by clicking the **Update** button. Required Permission: Document Type-UPDATE.

The pop-up panel contains the following information:

- **Name** - the Human Document Type name.
- **Description** - a short description of the Document Type.
- **Settings** - information about the fields that should be retrieved from the documents + additional settings. See [\(v. 2.2\) Document Type Settings JSON Structure](#).

Security access to Document Type

To manage the security access for the Document Type, you need to:

- Navigate to the **Administration Human Task Types** module.
- Navigate to the **Human Task Type Details** of the corresponding Human Task Type.
- Click at the Security Access icon for the corresponding Document Type.

Human Task Types / Information Extraction

Human Task Type Details [← Back to list](#) Download CREATE NEW

Document Types Playground JSON Documentation

Filter by text Refresh Delete

Name	Description	Last Update			
<input type="checkbox"/> IE sample	IE sample for invoice	21.05.2021 15:57			
<input type="checkbox"/> RI Remittance Advice		21.05.2021 15:35			

Rows per page: 10 1-2 of 2

© 2021 IBA Group. All rights reserved. v2.1.0-36221/2.1-SNAPSHOT-36232

- For further actions see [\(v. 2.2\) Security Access](#).

Manage Notifications

The Manage Notifications button allows users to receive messages about a particular Document Type. To access the Notifications, you need to be granted DocumentType-READ permission. See [\(v. 2.2\) Role Permissions](#).

To manage the notifications for the Document Type, you need to:

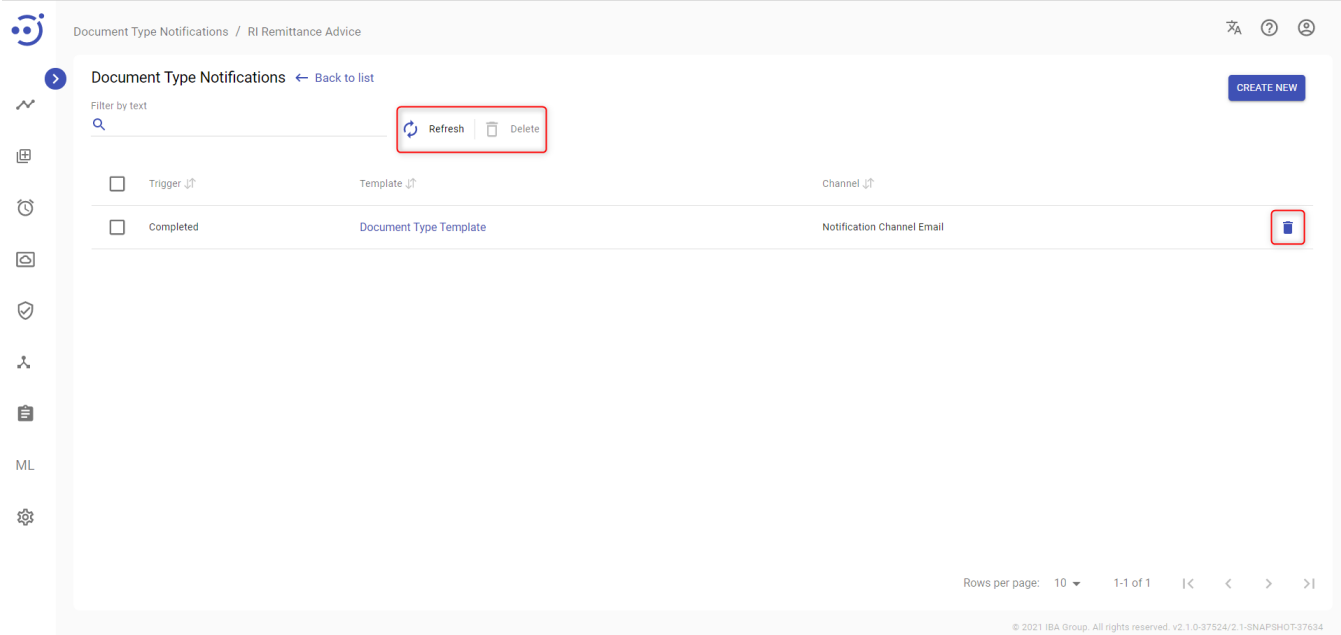
- Navigate to the **Administration Human Task Types** module.
- Navigate to the **Human Task Type Details** of the corresponding Human Task Type.
- Click at the **Manage Notifications** icon for the corresponding Document Type.

The screenshot shows the 'Human Task Type Details' page for 'Extraction'. The page includes a navigation menu on the left, a breadcrumb trail, and a table of document types. The table has columns for 'Name', 'Description', and 'Last Update'. The 'RI Remittance Advice' row is highlighted, and its Manage Notifications icon (a bell) is circled in red. The 'Extraction' row is also visible below it.

Name	Description	Last Update	Control Icons
RI Remittance Advice		16.06.2021 10:37	Manage Notifications, Users, Delete
Extraction		16.06.2021 09:55	Manage Notifications, Users, Delete

Control icons

- **Refresh** - to refresh the page.
- **Delete** an existing channel via the recycle bin control icon in the table row or Delete icon above the table. Required Permission: DocumentType-UPDATE. See [\(v. 2.2\) Role Permissions](#).



Columns Description

- **Trigger** - the action for which the message is sent to the particular channel.
- **Template** - example of a message is sent to a channel.
- **Channel** - mailing list of contacts.

Filter by text

Filtering allows you to search the automation process by Trigger, Template and Channel.

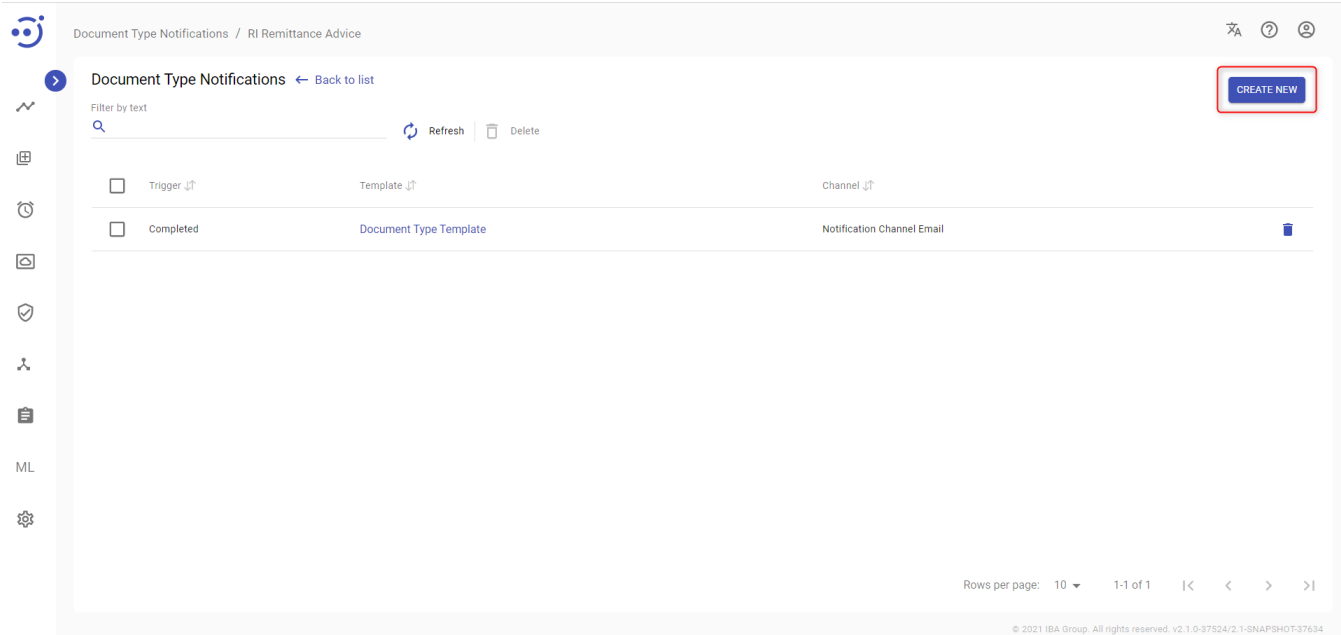
Sorting

Ascending/descending sorting is allowed for the Trigger, Template and Channel columns.

Create a New Notification

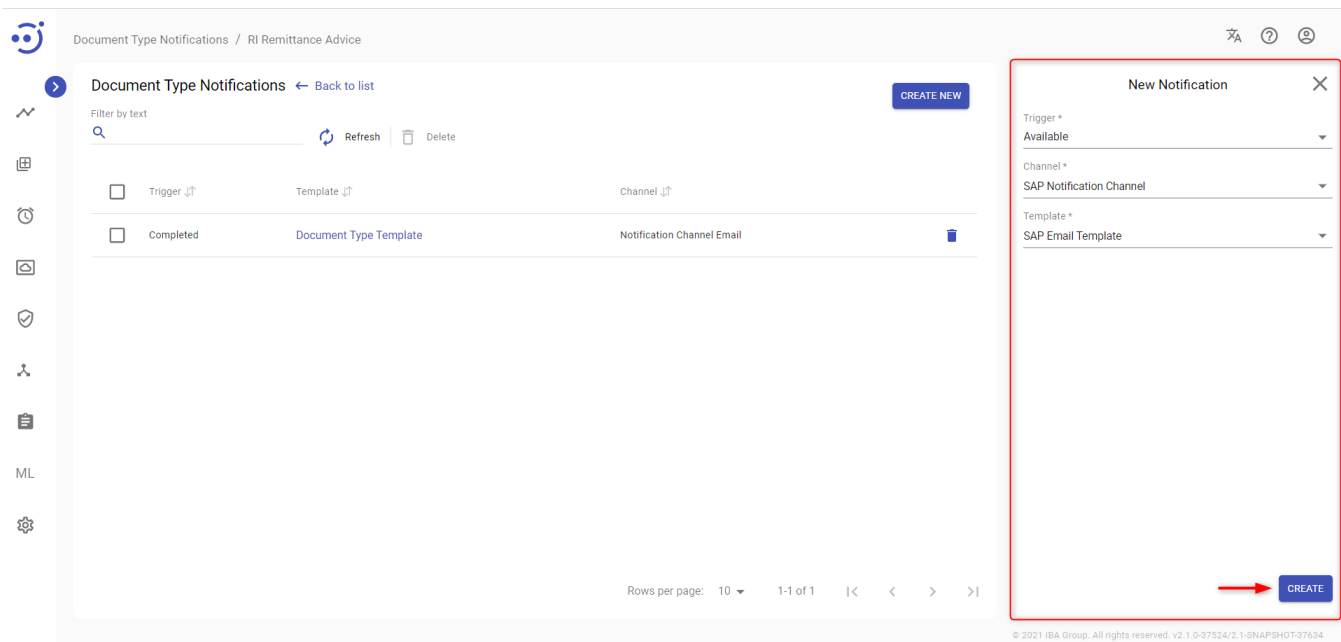
To create a New Notification, you need to be granted DocumentType-UPDATE. See [\(v. 2.2\) Role Permissions](#).

1. Go to the Document Type Notifications and click **CREATE NEW** button:



2. In the New Notification pop-up panel enter **Trigger, Chanel, Template**.

3. Click **CREATE**.



View/Edit an existing notification

To update an existing Notification, you need to:

- Click on the corresponding Record.
- Change one of the field values in the **Edit Notification** popup panel.
- Click **UPDATE**.

Required Permission: DocumentType-UPDATE. See (v. 2.2) [Role Permissions](#).



Document Type Notifications ← Back to list CREATE NEW

Filter by text Refresh Delete

<input type="checkbox"/>	Trigger ↓↑	Template ↓↑	Channel ↓↑	
<input type="checkbox"/>	Completed	Document Type Template ←	Notification Channel Email	

Rows per page: 10 1-1 of 1 |< < > >|

Edit Notification ✕

Trigger *
Completed

Channel *
Notification Channel Email

Template *
SAP Email Template

→ UPDATE

(v. 2.2) Document Type Settings JSON Structure

This section describes how to create Settings JSON for the following Human Task Types:

- [Form Task](#)
- [Classification Task](#)
- [Information Extraction Task](#)

Form Task

Below you can find an example of the Settings JSON for the Sample From Task:

Form Settings JSON example

```
{
  "autoSave": false,
  "taskInstructionText": "Carefully read and classify this text using the categories provided.",
  "taskInstructionLink": "https://172.20.194.57:8444/minio/data/ht_articles_classification/instruction.html",
  "taskTypeLabel": "Forms",
  "appLanguage": "en",
  "groups": [
    {
      "groupTitle": "General Information",
      "fields": [
        {
          "name": "full_name",
          "label": "Please, provide your Full Name",
          "type": "text",
          "required": true,
          "validationRegExp": "/^[a-zA-Z]+$/"
        },
        {
          "name": "email",
          "label": "Please, provide your email",
          "type": "text",
          "required": true,
          "validationRegExp": "^[\\w-\\.]+@[\\w-]+\\.([\\w-]{2,4})$"
        },
        {
          "name": "birthday",
          "label": "Please, provide your birthday",
          "type": "date",
          "required": true
        },
        {
          "name": "Gender",
          "label": "Please, provide your gender",
          "type": "radio",
          "required": false,
          "items": [
            { "label": "Male", "disabled": false },
            { "label": "Female", "disabled": false },
            { "label": "Other", "disabled": true }
          ]
        }
      ]
    },
    {
      "groupTitle": "Provide your feedback",
      "fields": [
        {
          "name": "goal_of_using",
          "label": "What is your main goal for using this website?",
          "type": "textarea",
          "required": true
        }
      ]
    }
  ]
}
```

```

    "name": "what_changed",
    "label": "What changed for you after you started using our website?",
    "type": "textarea",
    "required": true,
    "validationRegExp": "/^[a-zA-Z]{20,50}$/"
  },
  {
    "name": "where_did_you_hear",
    "label": "Where did you first hear about us?",
    "type": "radio",
    "required": true,
    "items": [
      {
        "label": "On Google",
        "disabled": false
      },
      {
        "label": "On Billboards",
        "disabled": false
      },
      {
        "label": "On TV Ads",
        "disabled": false
      }
    ]
  },
  {
    "name": "what_you_like",
    "label": "What do you like most about our website?",
    "type": "select",
    "required": true,
    "values": ["Design", "Experience", "Action Flow", "Ease of finding
required information"]
  },
  {
    "name": "what_you_interested",
    "label": "what are you interested in?",
    "type": "checkbox",
    "required": true,
    "disabled": false,
    "items": [
      { "label": "Politic", "disabled": false},
      { "label": "Sport", "disabled": false},
      { "label": "History", "disabled": true }
    ]
  }
]
}
]
}
}

```

These settings contain:

- **autoSave** (boolean) (optional) - allows saving intermediate task results automatically. By default, the setting has a "*false*" value.
- **taskInstructionText** (string) (optional) - represents the instructions text that will appear in the popup
- **taskInstructionLink** (string) (optional) - represents the link to the remote instructions source. Having at least one of these fields **taskInstructionText** or **taskInstructionLink** will cause the Instructions button to appear.
- **taskTypeLabel** (string) (optional) - allows to configure the task title. By default, it is set to "Forms".
- **appLanguage** (string) (optional) - allows the user to set up the Human Task localization. Currently available options are "*en*" and "*ru*". By default, the task displays as "*en*".
- **groups** (list of objects) (required) - list of group settings. Each group in the list has the following structure:
 - **groupTitle** (string) (required) - identifies the group name to display in Human Task.
 - **fields** (list of objects) (required) - list of fields settings. Each field in the list has the following structure:
 - **name** (string) (required) - is used as a key to get value from output result. It's never displayed on the Human Task and **must be unique for the entire form**
 - **label** (string) (required) - label to display on Human Task.
 - **type** (string) (required) - specifies the type of field. Should be one of the supported types: **text**, **textarea**, **date**, **radio**, **select**, **checkbox**.

- **required** (boolean) (optional) - shows if the field is required for filling, so the user won't be able to submit Human Task without specifying the values for all required fields.
- **validationRegExp** (string) (optional) - provides possibility to validate filled values using regular expressions.
- **disabled** (boolean) (optional) - provides the possibility to disable the field which will prevent the user from filling this field.
- **values** (list of strings) (required only for "type": "select") - is used only if **"type": "select"**. Specifies possible items in the select dropdown list.
- **items** (list of objects) (required only for "type": "checkbox") - is used only if **"type": "checkbox"**. Specifies possible items to check. Each item in the list has the following properties:
 - **label** (string) (required) - the label of the checkbox to display on Human Task.
 - **disabled** (boolean) (optional) - provides the possibility to disable the checkbox item which will prevent the user from select it.

Classification Task

Below you can find an example of the Settings JSON for the Sample Classification Task:

Classification Settings JSON example

```
{
  "autoSave": false,
  "taskInstructionText": "Carefully read and classify this text using the categories provided.",
  "taskInstructionLink": "https://172.20.194.57:8444/minio/data/ht_articles_classification/instruction.html",
  "taskTypeLabel": "Document Classification",
  "appLanguage": "en",
  "multipleChoice": false,
  "categories": [
    "Science",
    "Politics",
    "Sport",
    "Business"
  ],
  "scoreThreshold": 0.1
}
```

These settings contain:

- **autoSave** (boolean) (optional) - allows saving intermediate task results automatically. By default, the setting has a *"false"* value.
- **taskInstructionText** (string) (optional) - represents the instructions text that will appear in the popup
- **taskInstructionLink** (string) (optional) - represents the link to the remote instructions source. Having at least one of these fields **taskInstructionText** or **taskInstructionLink** will cause the Instructions button to appear.
- **taskTypeLabel** (string) (optional) - allows to configure the task title. By default, it is set to "Document Classification".
- **appLanguage** (string) (optional) - allows the user to set up the Human Task localization. Currently available options are *"en"* and *"ru"*. By default, the task displays as *"en"*.
- **multipleChoice** (boolean) (optional) - allows enabling multiple choice mode, where you can select multiple categories instead of one. By default, the setting has a *"false"* value.
- **categories** (list of strings) (required) - list of predefined classes your documents may relate to
- **scoreThreshold** (decimal) (optional) - is used when **multipleChoice is true** to auto-select the categories after ML. When **multiple Choice is false**, the **scoreThreshold** doesn't matter because the category with the highest score is automatically selected.

Information Extraction Task

Below you can find an example of the Settings JSON for the Sample Information Extraction Task:

Information Extraction Settings JSON example

```
{
  "regexFunctions": {
    "numberMore10": "(value) => { return Number(value) > 10}",
    "lengthMore3": "(value) => { return value.length > 3}"
  },
  "taskInstructionText": "Carefully read and classify this text using the categories provided.",
}
```

```

"taskInstructionLink": "https://172.20.194.57:8444/minio/data/ht_articles_classification/instruction.html",
"taskTypeLabel": "Information Extraction",
"autoSave": false,
"allowCustomValue": false,
"appLanguage": "en",
"excludeUndefinedEntities": false,
  "categories": [
    {
      "name": "Amount",
      "multiple": true,
      "regex": "^[0-9]*$"
    },
    {
      "name": "Description",
      "multiple": true
    },
    {
      "name": "ItemQuantity",
      "multiple": true,
      "required": true
    },
    {
      "name": "ItemPrice",
      "multiple": true,
      "required": true,
      "helperText": "Number should be more than 10",
      "regexFnc": ["numberMore10", "lengthMore3"]
    },
    {
      "name": "ItemAmount",
      "multiple": true
    }
  ]
}

```

These settings contain:

- **regexFunctions** (object) (optional) - a special object which contains "key" "value" pairs to specify custom fields validators, where "key" is your custom function name which can be used as a link in "**regexFnc**" option of field settings under "**categories**" setting. "value" - is your custom JavaScript lambda function.
- **taskInstructionText** (string) (optional) - represents the instructions text that will appear in the popup
- **taskInstructionLink** (string) (optional) - represents the link to the remote instructions source. Having at least one of these fields **taskInstructionText** or **taskInstructionLink** will cause the Instructions button to appear.
- **taskTypeLabel** (string) (optional) - allows to configure the task title. By default, it is set to "Information Extraction".
- **autoSave** (boolean) (optional) - allows saving intermediate task results automatically. By default, the setting has "*false*" value.
- **allowCustomValue** (boolean) (optional) - enables the possibility to enter a custom value without any connection to the input document picture. This possibility is useful when OCR failed to extract some text from the document.
- **appLanguage** (string) (optional) - allows the user to set up the Human Task localization. Currently available options are "*en*" and "*ru*". By default, the task displays as "*en*".
- **excludeUndefinedEntities** (boolean) (optional) - allows getting the output only of fields that are configured in "categories" setting. By default, the setting has "*false*" value.
- **categories** (list of objects) (required) - list of fields to extract from the document, where each item contains:
 - **name** (string) (required) - it serves as a key to receiving data from Human Task output
 - **multiple** (boolean) (required) - shows if this field may have multiple values (uses when you have the list with details of some items in your document, e.g. a list of products)
 - **required** (boolean) (optional) - shows if the field is required for extraction, so human won't be able to submit Human Task without specifying the values for all required fields
 - **helperText** (string) (optional) - an additional text which is shown if the value is invalid due to additional validators specified by regexp settings.
 - **regex** (string) (optional) - specify regexp function to use for values validation
 - **regexFnc** (list of string) (optional) - list of names of validator functions, which are specified by in "**regexFunctions**".

(v. 2.2) Playground

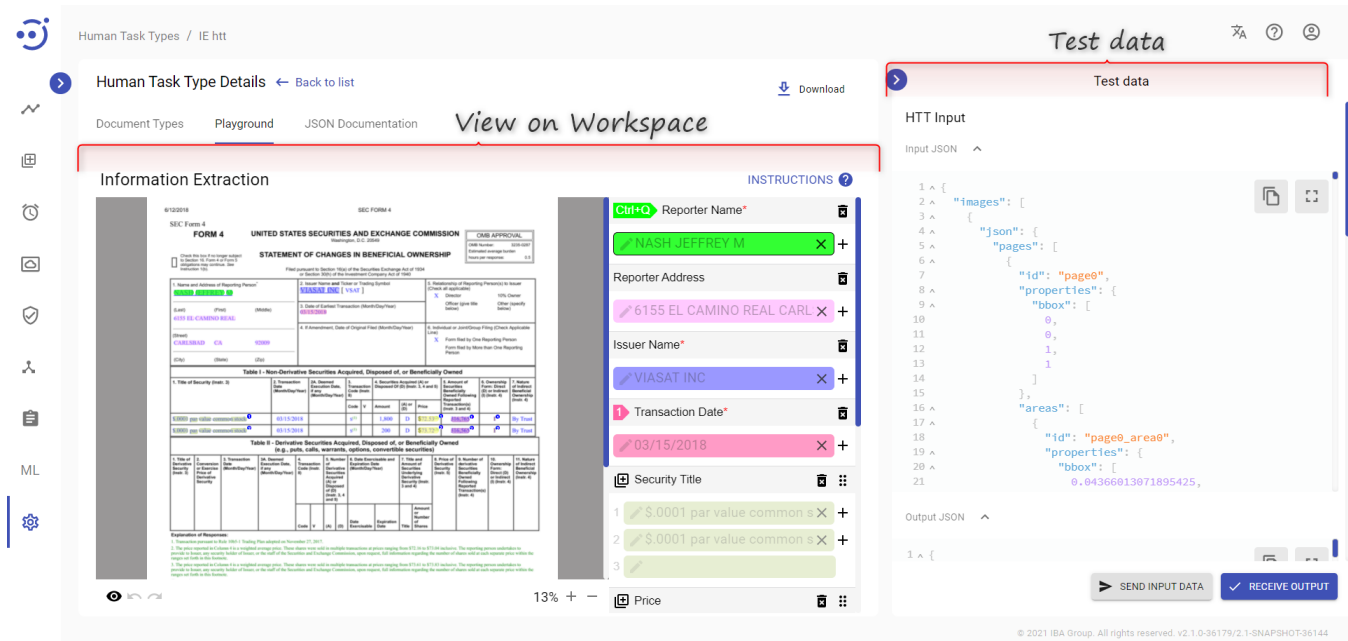
The Playground is a built-in Human Task Type editor that allows users to check how the Human Task operates on the Workspace.

- [Form Task](#)
- [Classification Task](#)
- [Information Extraction Task](#)

Overview

The Playground section consists of the two main areas:

1. **View on Workspace** - which represents how the corresponding Human Task Type looks on the Workspace.
2. **Test Data** - which contains the Human Task Type Input and Output Data.



It is possible to make changes to both areas and see the effect of those changes straight away.

To see how the changes in the Test Data will reflect the view in the Workspace:

- Make changes to one of the **Human Task Type Input JSONs**.
- Click **Send Input Data**.

Human Task Type Details / IE htt

Document Types | Playground | JSON Documentation

Information Extraction

SEC FORM 4
FORM 4 UNITED STATES SECURITIES AND EXCHANGE COMMISSION
 STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

INSTRUCTIONS

- Reporter Name* NASH JEFFREY M
- Reporter Address 6155 EL CAMINO REAL CARL
- Issuer Name* VIASAT INC
- Transaction Date* 03/15/2018
- Security Title
 - \$.0001 par value common s
 - \$.0001 par value common s
 - \$.0001 par value common s

Price

Test data

HTT Input

Input JSON ✓
 Output JSON ✓
 Settings ✓

HTT Output **1** Make changes to one of HTT input JSONs

Task Output JSON ✓

2 Click Send Input Data

SEND INPUT DATA RECEIVE OUTPUT

© 2021 IBA Group. All rights reserved. v2.1.0-36179/2.1-SNAPSHOT-36144

To see how changes in the Workspace reflect the Human Task Type Output:

- Make changes to the **View on WorkSpace** area.
- Click **Receive Output**.

Human Task Type Details / IE htt

Document Types | Playground | JSON Documentation

Information Extraction

SEC FORM 4
FORM 4 UNITED STATES SECURITIES AND EXCHANGE COMMISSION
 STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

INSTRUCTIONS

- Reporter Name* NASH JEFFREY M
- Reporter Address 6155 EL CAMINO REAL CARL
- Issuer Name* VIASAT INC
- Transaction Date* 03/15/2018
- Security Title
 - \$.0001 par value common s
 - \$.0001 par value common s
 - \$.0001 par value common s

Price

Test data

HTT Input

Input JSON ✓
 Output JSON ✓
 Settings ✓

HTT Output

Task Output JSON ✓

1 Make changes to HTT Output JSON

2 Click Receive Output

SEND INPUT DATA RECEIVE OUTPUT

© 2021 IBA Group. All rights reserved. v2.1.0-36179/2.1-SNAPSHOT-36144

⚠ The Playground serves only for testing purposes and the changes are not saved. If you refresh the page, it will return to its original view.

Form Task

The Form Task allows conducting surveys and assumes that the user fills out a customizable form.

Test Data

The test data of the Form HTT contains the following information:

- HTTP Input - contains the input of the Human Task.
 - *Input JSON* - contains the structure of the form that we see on the Workspace.
 - *Output JSON* - contains information entered in the form that we have as input on the Workspace (i.e. ML Model results that the human should review).
 - *Settings* - contain additional settings applied to the Form fields. For more details see [Document Type Settings JSON Structure](#).
- HTTP Output - contains the output of the Human Task (the JSON file the automation process receives after the Human Task is completed).
 - *Output JSON* - contains the Human Task results in JSON format.

⚠ The HTTP Output/ Output JSON has the same structure as the HTTP Input/ Output JSON. If there is nothing changed in the Human Task, the Output JSON will be equal to the HTTP Input/ Output JSON.

Classification Task

The Classification Task allows document classification by assigning them one or more categories (in Machine Learning - classes).

The screenshot displays the 'Human Task Type Details' page for 'CL htt'. It is divided into two main sections: 'Document classification' and 'Test data'.

Document classification: Shows a document image of a utility bill. To the right, a list of categories is shown with checkboxes and percentages:

- WATER 51.11%
- RECYCLING 37.45%
- ELECTRICITY 6%
- GAS 3%
- TELECOM 2.44%

Test data: Shows the 'HTT Input' and 'Output JSON'. The 'Input JSON' is a complex structure with 'images', 'pages', and 'areas' arrays. The 'Output JSON' is currently empty.

Test Data

The test data of the Classification HTT contains the following information:

- HTTP Input - contains the input of the Human Task.
 - *Input JSON* - represents the document's OCR result in JSON format superimposed on the original document picture.
 - *Output JSON* - contains the information about selected classes in JSON format (i.e. ML model results that came to the Human Task for the human's review).
 - *Settings* - contain the list of categories (classes) and additional Human Task settings in JSON format. For more details see [Document Type Settings JSON Structure](#).
- HTTP Output - contains the output of the Human Task (the JSON file the automation process receives after the Human Task is completed).
 - *Output JSON* - the JSON file contains the output results.

⚠ The HTTP Output/ Output JSON has the same structure as the HTTP Input/ Output JSON. If there is nothing changed in the Human Task, the Output JSON will be equal to the HTTP Input/ Output JSON.

Information Extraction Task

Information extraction (IE) is a process of extracting structured information (or key facts) from unstructured and/or semi-structured documents (invoices, claims, dividend news, etc.).



Human Task Type Details [← Back to list](#) Download

Document Types [Playground](#) [JSON Documentation](#)

Information Extraction

INSTRUCTIONS ?

Reporter Name*

Reporter Address

Issuer Name*

Transaction Date*

Security Title

Price

Test data

HTT Input

Input JSON

```

1 {
2   "images": [
3     {
4       "json": {
5         "pages": [
6           {
7             "id": "page0",
8             "properties": {
9               "bbox": [
10                0,
11                0,
12                1,
13                1
14              ]
15            }
16          }
17        ]
18      }
19      "id": "page0_area0",
20      "properties": {
21        "bbox": [
22          0.04366813671895425,

```

Output JSON

```

1 {

```

SEND INPUT DATA RECEIVE OUTPUT

© 2021 IBA Group. All rights reserved. v2.1.0-36179/2.1-SNAPSHOT-36144

Test Data

The test data of the IE HTT contains the following information:

- HTTP Input - contains the input of the Human Task.
 - *Input JSON* - represents the document's OCR result in JSON format superimposed on the original document picture.
 - *Output JSON* - contains the input tagging results in JSON format (i.e. ML model tagging results that came to the Human Task for the human's review).
 - *Settings* - contain the categories to be extracted from the document, the validation rules applied to the categories, and additional Human Task settings in JSON format. For more details see [Document Type Settings JSON Structure](#).
- HTTP Output - contains the output of the Human Task (the JSON file the automation process receives after the Human Task is completed).
 - *Output JSON* - the JSON file contains the output tagging results.

⚠️ The HTTP Output/ Output JSON has the same structure as the HTTP Input/ Output JSON. If there is nothing changed in the Human Task, the Output JSON will be equal to the HTTP Input/ Output JSON.

(v. 2.2) User Management

- [Create a New User](#)
- [Password](#)
- [System User](#)
- [View/Edit a User Properties](#)
- [Delete, Disable/Enable, Restore a User](#)
- [Download Developer configuration of a User](#)
- [User Groups and Role Permissions](#)

The User Management module displays a catalog of all the users in the system and provides access to all User Management functions. The Lightweight Directory Access Protocol, or LDAP for short, is used for easy management user accounts. All users are accessed from your external LDAP resource after adding users to EasyRPA and assigning user group with roles.

You can access the module by clicking **Administration User Management**. Required Permission: User-READ. See [\(v. 2.2\) Role Permissions](#).

The screenshot shows the 'User Management' interface. At the top, there is a 'Filter by text' search bar, a 'Refresh' button, and icons for 'Enable', 'Disable', and 'Delete'. A 'CREATE NEW' button is located in the top right corner. Below these elements is a table with columns: Username, E-mail, Full Name, Status, Groups, and Creation Date. The table contains several rows of user data, including 'easy_rpa_1', 'easy_rpa_2', 'easy_rpa_3', and 'ilyuchyik_RA'. Each row has a set of control icons on the right. A navigation menu is visible on the left side, with 'User Management' highlighted by a red arrow. Another red arrow points to the 'Settings' icon in the bottom left corner of the interface.

Username	E-mail	Full Name	Status	Groups	Creation Date	Actions
easy_rpa_1	easy_rpa_1@itd.iba.by	easy_rpa_1 easy_rpa_1	Enabled	Administrators	27.04.2021 11:45	[Download] [Refresh] [Disable] [Edit] [Delete]
easy_rpa_2	easy_rpa_2@itd.iba.by	easy_rpa_2 easy_rpa_2	Disabled	Administrators	27.04.2021 11:45	[Download] [Refresh] [Enable] [Edit] [Delete]
easy_rpa_3	easy_rpa_3@itd.iba.by	easy_rpa_3 easy_rpa_3	Deleted	Administrators	27.04.2021 11:46	[Download] [Refresh] [Restore] [Edit] [Delete]
ilyuchyik_RA	ilyuchyik_RA@itd.iba.by	Raman Ilyuchyik	Enabled	RP Administrators	27.04.2021 11:51	[Download] [Refresh] [Disable] [Edit] [Delete]
NODE 4	dedicated user	NODE 4 dedicated user	System	Nodes	27.04.2021 11:35	[Download] [Refresh] [Disable] [Edit] [Delete]
NODE 2	dedicated user	NODE 2 dedicated user	System	Nodes	27.04.2021 11:34	[Download] [Refresh] [Disable] [Edit] [Delete]
NODE 3	dedicated user	NODE 3 dedicated user	System	Nodes	27.04.2021 11:34	[Download] [Refresh] [Disable] [Edit] [Delete]
NODE 1	dedicated user	NODE 1 dedicated user	System	Nodes	27.04.2021 11:33	[Download] [Refresh] [Disable] [Edit] [Delete]

EasyRPA Control Server allows to perform the following actions:

- **Create** a new user via CREATE NEW icon above the table.
- **Edit** user properties and user groups via Edit User popup panel.
- **Delete** an existing user via the recycle bin control icon in the table row or Delete icon above the table.
- **Disable/Enable** an existing user profile via Disable/Enable icon in the table row or above the table.
- **Download Developer configuration** of an existing user via Download Developer configuration icon in the table row.
- **Restore** a deleted user via Restore icon in the table row.

Filter by text

Filtering allows you to search the user by the columns: Username, E-mail, Full Name, Status, Groups.

Sorting

Ascending/descending sorting is allowed for the columns: Username, E-mail, Full Name, Creation Date.

Create a New User

To create a user:

1. Go to the **User Management** module and click **CREATE NEW**. Required Permission: User-CREATE. See [Role Permissions](#).
2. In the **New User** popup panel:

- Enter **Username**, **First Name** and **Last Name**, **Password**, **Confirm Password**, **E-mail** (optionally). If LDAP is enabled: Enter at least 3 letters of **Username** and choose user from available in the dropdown list. The user credentials cannot be changed since it is provided from your external LDAP resource.
- Tick **Enable user**, if necessary.
- Choose the user **Groups** from available in the dropdown list. To add a new User Group, go to **Administration Group Management**.
- Default group contains permissions and selected automatically, when you choose a group.

3. Click **CREATE**.

The screenshot displays the 'User Management' interface. On the left is a sidebar with navigation icons. The main area features a table of users with columns for Username, E-mail, Full Name, Status, Groups, and Creation Date. A 'CREATE NEW' button is highlighted in a red box in the top right of the table area. On the right, a 'New User' modal form is open, also outlined in red. The form contains fields for Username (set to 'easyrpa-bind'), First Name, Last Name, and E-mail. It includes a checked 'Enable' checkbox, a 'Groups' dropdown menu with 'Administrators' selected, and a 'Default group' dropdown menu also set to 'Administrators'. A 'CREATE' button is at the bottom right of the modal.

Username	E-mail	Full Name	Status	Groups	Creation Date
admin	admin@easyrpa.eu	System Admin	Enabled	RO Minio Storage, Administrators	27.04.2021 08:27
burak_na	Burak_NA@itd.iba.by	Nastassia Burak	Enabled	Administrators	27.04.2021 16:41
easy_rpa_1	easy_rpa_1@itd.iba.by	easy_rpa_1 easy_rpa_1	Enabled	RP Administrators, Administrators	27.04.2021 11:45
easy_rpa_2	easy_rpa_2@itd.iba.by	easy_rpa_2 easy_rpa_2	Enabled	RP Administrators, Administrators	27.04.2021 11:45
easy_rpa_3	easy_rpa_3@itd.iba.by	easy_rpa_3 easy_rpa_3	Enabled	RP Administrators, Administrators	27.04.2021 11:46
ilyuchyk_ra	ilyuchyk_RA@itd.iba.by	Raman Ilyuchyk	Enabled	Administrators	27.04.2021 11:51
trotskaya_di	Trotskaya_DI@itd.iba.by	Darya Trotskaya	Enabled	Administrators	29.04.2021 12:22
zaprutskaya_hg	Zaprutskaya_HG@itd.iba...	Hanna Zaprutskaya	Enabled	Administrators	27.04.2021 15:02
nodeuser-8e74f6b9		NODE 5 dedicated dedicated user	System	Nodes	27.04.2021 18:10

Password

Password requirements:

- Password should **not** contain the username.
- Passwords should be **longer** than 7 characters.
- Password contain **at least** 1 alpha, 1 numeric character, 1 character in lower case and 1 character in upper case.

Change password:

1. If LDAP is disabled, admin user clicks the corresponding user row, changes the password in the popup panel, and click **UPDATE**. Required Permissions: User-UPDATE. See (v. 2.2) [Role Permissions](#).

The screenshot shows the 'User Management' interface. On the left is a sidebar with navigation icons. The main area displays a table of users with columns for Username, E-mail, Full Name, Status, Groups, and Creation Date. The user 'easy_rpa_1' is selected. On the right, the 'Edit User' modal is open, showing fields for Username, Password, Confirm Password, First Name, Last Name, E-mail, and Groups. The 'Password' and 'Confirm Password' fields are highlighted with a red box. At the bottom right of the modal is an 'UPDATE' button with a red arrow pointing to it.

Username	E-mail	Full Name	Status	Groups	Creation Date
queue		System Queue	System		10.06.2021 10:34
nodeuser-15d720dc		NODE 1 AP user	System	Nodes	10.06.2021 13:41
nodeuser-536252d4		NODE 2 AP user	System	Nodes	10.06.2021 13:41
nodeuser-143a4ec3		NODE 3 AP user	System	Nodes	10.06.2021 13:41
nodeuser-3fb14bf4		NODE 4 AP user	System	Nodes	10.06.2021 13:41
burak_na	Burak_NA@itd.iba.by	Nastassia Burak	Enabled	Administrators	10.06.2021 15:07
easy_rpa_1	easy_rpa_1@itd.iba.by	easy_rpa_1 easy_rpa_1	Enabled	Administrators	10.06.2021 15:40
easy_rpa_2	easy_rpa_2@itd.iba.by	easy_rpa_2 easy_rpa_2	Enabled	Administrators	10.06.2021 15:40

2. User clicks on the profile icon in the upper-right corner and selects "Change Password" row, fills in the specified fields: *Current password*, *New password*, *Confirm password* according to the password requirements and clicks **CHANGE**.

The screenshot shows the 'Change Password' modal form. It has three input fields: 'Current password', 'New password', and 'Confirm password'. Below the fields are two buttons: '← TO HOME PAGE' and 'CHANGE'. In the top right corner, there is a user profile dropdown menu for 'System Admin' with the email 'admin@easyRpa.com'. The 'Change Password' option in this menu is highlighted with a red box and a red arrow.

System User

The User Management module displays the system users, who are necessary for the correct operation of the application. They can be created automatically (*SCHEDULER*) or manually, when creating a user (*NODE*). System Users have the "System" status.

User Management

Filter by text

Refresh Enable Disable Delete

Username	E-mail	Full Name	Status	Groups	Creation Date	
nodeuser-82a770f0		NODE 1 dedicated user	System	Nodes	27.04.2021 11:33	Download Refresh Enable Disable Edit Delete
nodeuser-60ab89e6		NODE 2 dedicated user	System	Nodes	27.04.2021 11:34	Download Refresh Enable Disable Edit Delete
nodeuser-7f1a5bbf		NODE 3 dedicated user	System	Nodes	27.04.2021 11:34	Download Refresh Enable Disable Edit Delete
nodeuser-59e2b891		NODE 4 dedicated user	System	Nodes	27.04.2021 11:35	Download Refresh Enable Disable Edit Delete
easy_rpa_1	easy_rpa_1@itd.iba.by	easy_rpa_1 easy_rpa_1	Enabled	RP Administrators, Administrators	27.04.2021 11:45	Download Refresh Enable Disable Edit Delete
easy_rpa_2	easy_rpa_2@itd.iba.by	easy_rpa_2 easy_rpa_2	Enabled	RP Administrators, Administrators	27.04.2021 11:45	Download Refresh Enable Disable Edit Delete

Rows per page: 10 1-10 of 16

© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

⚠ System user cannot be edited or deleted.

User Management

Filter by text

Refresh Enable Disable Delete

Username	E-mail	Full Name	Status	Groups	Creation Date	
queue		System Queue	System		27.04.2021 08:27	Download Refresh Enable Disable Edit Delete
nodeuser-82a770f0		NODE 1 dedicated user	System	Nodes	27.04.2021 11:33	Download Refresh Enable Disable Edit Delete
nodeuser-60ab89e6		NODE 2 dedicated user	System	Nodes	27.04.2021 11:34	Download Refresh Enable Disable Edit Delete
nodeuser-7f1a5bbf		NODE 3 dedicated user	System	Nodes	27.04.2021 11:34	Download Refresh Enable Disable Edit Delete
nodeuser-59e2b891		NODE 4 dedicated user	System	Nodes	27.04.2021 11:35	Download Refresh Enable Disable Edit Delete
easy_rpa_1	easy_rpa_1@itd.iba.by	easy_rpa_1 easy_rpa_1	Enabled	RP Administrators, Administrators	27.04.2021 11:45	Download Refresh Enable Disable Edit Delete
easy_rpa_2	easy_rpa_2@itd.iba.by	easy_rpa_2 easy_rpa_2	Enabled	RP Administrators, Administrators	27.04.2021 11:45	Download Refresh Enable Disable Edit Delete
easy_rpa_3	easy_rpa_3@itd.iba.by	easy_rpa_3 easy_rpa_3	Enabled	RP Administrators, Administrators	27.04.2021 11:46	Download Refresh Enable Disable Edit Delete

Edit User

Username *
nodeuser-82a770f0

First Name *
NODE 1

Last Name *
dedicated user

E-mail

Enable

Groups
Nodes X

Default group

UPDATE

Rows per page: 10 1-10 of 16

© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

View/Edit a User Properties

To view or edit user information, click the corresponding user row, make changes in the popup panel, and click **UPDATE**. Required Permissions: Required Permissions: User-UPDATE. See (v. 2.2) [Role Permissions](#).

If LDAP is enabled, **Username**, **First Name**, **Last Name**, **Password**, **E-mail** cannot be changed.

User Management

Filter by text

Refresh Enable Disable Delete

Username	E-mail	Full Name	Status	Groups	Creation Date	Actions
admin	admin@easyrpa.eu	System Admin	Enabled	RO Minio Storage, Administrators	27.04.2021 08:27	[Download] [Refresh] [Lock] [Edit] [Delete]
burak_na	Burak_NA@itd.iba.by	Nastassia Burak	Enabled	Administrators	27.04.2021 16:41	[Download] [Refresh] [Lock] [Edit] [Delete]
easy_rpa_1	easy_rpa_1@itd.iba.by	easy_rpa_1 easy_rpa_1	Enabled	RP Administrators, Administrators	27.04.2021 11:45	[Download] [Refresh] [Lock] [Edit] [Delete]
easy_rpa_2	easy_rpa_2@itd.iba.by	easy_rpa_2 easy_rpa_2	Enabled	RP Administrators, Administrators	27.04.2021 11:45	[Download] [Refresh] [Lock] [Edit] [Delete]
easy_rpa_3	easy_rpa_3@itd.iba.by	easy_rpa_3 easy_rpa_3	Enabled	RP Administrators, Administrators	27.04.2021 11:46	[Download] [Refresh] [Lock] [Edit] [Delete]
ilyuchyk_ra	ilyuchyk_RA@itd.iba.by	Raman Ilyuchyk	Enabled	Administrators	27.04.2021 11:51	[Download] [Refresh] [Lock] [Edit] [Delete]
trotskaya_di	Trotskaya_DI@itd.iba.by	Darya Trotskaya	Enabled	Administrators	29.04.2021 12:22	[Download] [Refresh] [Lock] [Edit] [Delete]
zaprutskaya_hg	Zaprutskaya_HG@itd.iba...	Hanna Zaprutskaya	Enabled	Administrators	27.04.2021 15:02	[Download] [Refresh] [Lock] [Edit] [Delete]
nodeuser-9e74f6b9		NODE 5 dedicated dedicated user	System	Nodes	27.04.2021 18:10	[Download] [Refresh] [Lock] [Edit] [Delete]

Rows per page: 10 1-10 of 16

© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT:34329

Delete, Disable/Enable, Restore a User

To Delete user, use the recycle bin control icon in the table row or Delete icon above the table. Required Permissions: User-DELETE. See (v. 2.2) Role Permissions.

To Disable/Enable or Restore user, use the control icons in the table row or above the table. Required Permissions: User-UPDATE. See (v. 2.2) Role Permissions.

User Management

Filter by text

Refresh Enable Disable Delete

Username	E-mail	Full Name	Status	Groups	Creation Date	Actions
easy_rpa_1	easy_rpa_1@itd.iba.by	easy_rpa_1 easy_rpa_1	Disabled	RP Administrators, Administrators	27.04.2021 11:45	[Download] [Refresh] [Lock] [Edit] [Delete]
easy_rpa_2	easy_rpa_2@itd.iba.by	easy_rpa_2 easy_rpa_2	Enabled	RP Administrators, Administrators	27.04.2021 11:45	[Download] [Refresh] [Lock] [Edit] [Delete]
easy_rpa_3	easy_rpa_3@itd.iba.by	easy_rpa_3 easy_rpa_3	Deleted	RP Administrators, Administrators	27.04.2021 11:46	[Download] [Refresh] [Lock] [Edit] [Delete]
ilyuchyk_ra	ilyuchyk_RA@itd.iba.by	Raman Ilyuchyk	Enabled	Administrators	27.04.2021 11:51	[Download] [Refresh] [Lock] [Edit] [Delete]
trotskaya_di	Trotskaya_DI@itd.iba.by	Darya Trotskaya	Enabled	Administrators	29.04.2021 12:22	[Download] [Refresh] [Lock] [Edit] [Delete]
zaprutskaya_hg	Zaprutskaya_HG@itd.iba.by	Hanna Zaprutskaya	Enabled	Administrators	27.04.2021 15:02	[Download] [Refresh] [Lock] [Edit] [Delete]

Rows per page: 20 1-16 of 16

© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT:34329

⚠ Disabled and deleted users cannot log in to Control Server until they are enabled.

Download Developer configuration of a User

To Download Developer configuration of a user, use the control icon in the table row.

User Management

Filter by text

Refresh Enable Disable Delete

Username	E-mail	Full Name	Status	Groups	Creation Date	Actions
easy_rpa_1	easy_rpa_1@itd.iba.by	easy_rpa_1 easy_rpa_1	Enabled	Developers	27.04.2021 11:45	Download, Refresh, Disable, Edit, Delete
easy_rpa_2	easy_rpa_2@itd.iba.by	easy_rpa_2 easy_rpa_2	Enabled	RP Administrators, Administrators	27.04.2021 11:45	Download, Refresh, Disable, Edit, Delete
easy_rpa_3	easy_rpa_3@itd.iba.by	easy_rpa_3 easy_rpa_3	Enabled	RP Administrators, Administrators	27.04.2021 11:46	Download, Refresh, Disable, Edit, Delete
ilyuchyk_ra	ilyuchyk_RA@itd.iba.by	Raman Ilyuchyk	Enabled	Administrators	27.04.2021 11:51	Download, Refresh, Disable, Edit, Delete
trotskaya_di	Trotskaya_DI@itd.iba.by	Darya Trotskaya	Enabled	Administrators	29.04.2021 12:22	Download, Refresh, Disable, Edit, Delete
zaprutskaya_hg	Zaprutskaya_HG@itd.iba.by	Hanna Zaprutskaya	Enabled	Administrators	27.04.2021 15:02	Download, Refresh, Disable, Edit, Delete

Rows per page: 10 1-10 of 16

© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

⚠️ Download Developer configuration icon is available only for a user who is in Developers group. Required Permission: User-READ. See (v. 2.2) [Role Permissions](#).

User Groups and Role Permissions

Each Control Server user may have one or more groups in the system. To view or modify a User membership in Groups, go to **Administration Group Management Users** or open Edit User popup panel.

You can create a new Role with a custom set of Permissions and grant it to a user via Group membership. To view or modify Permissions for a User Role, go to **Administration Group Management Roles**.

(v. 2.2) Group Management

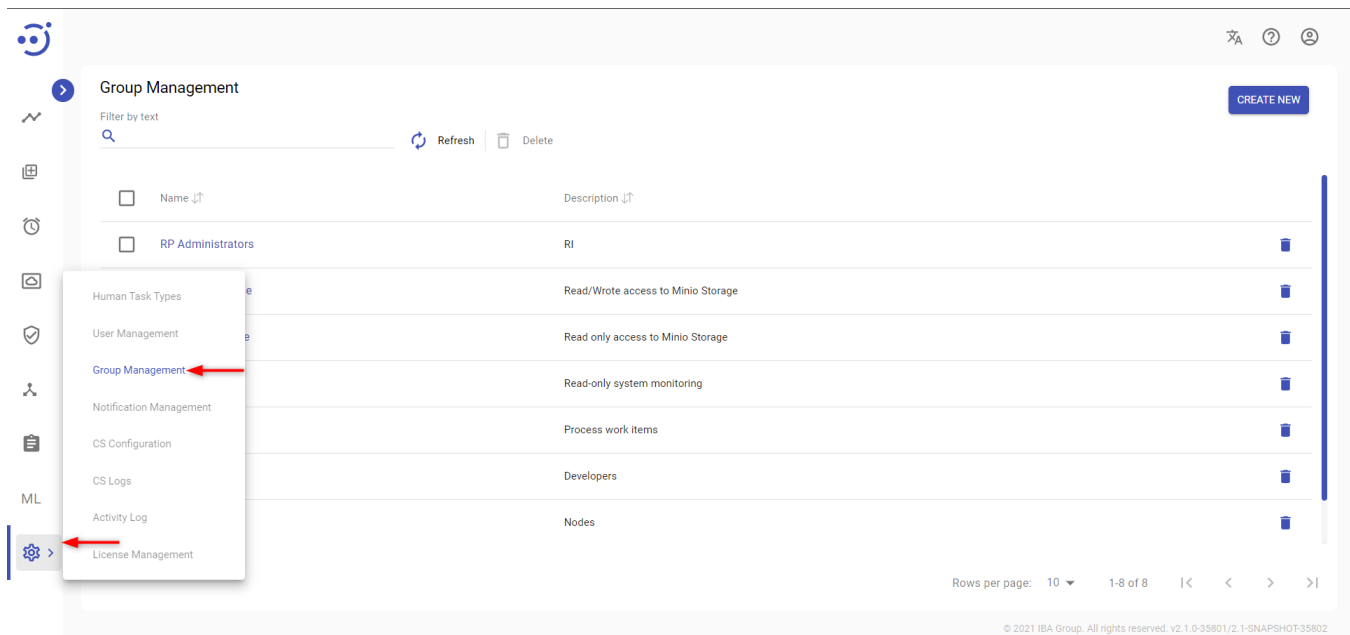
- [Create a New Group](#)
- [View/Edit a Group Properties](#)
- [View/Edit Roles in a Group](#)
- [View/Edit Users in a Group](#)
- [Delete an Existing Group](#)

The Group Management module displays a catalog of all the user groups and provides access to all group management functions.

Groups allow to combine users and assign roles to them. See [\(v. 2.2\) User Management, Group Management#View/Edit Users in a Group, Group Management#View/Edit Roles in a Group](#).

To manage Groups, users must have Group Management modification permissions. See [\(v. 2.2\) Role Permissions](#).

You can access the module by clicking **Administration Group Management**. Required Permission: Group-READ. See [\(v. 2.2\) Role Permissions](#).



EasyRPA Control Server allows to perform the following actions:

- **Create** a new group via CREATE NEW icon above the table.
- **Edit** an existing group via Edit Group popup panel and its roles and users via Group Details.
- **Delete** an existing group via the recycle bin control icon in the table row or Delete icon above the table.
- **Pull** the last updates from the server via Refresh icon.

Filter by text

Filtering allows you to search the group by all columns.

Sorting

Ascending/descending sorting is allowed for all columns.

Create a New Group

To create a group:

1. Go to the **Group Management** module and click **CREATE NEW**. Required Permission: Group-CREATE. See [\(v. 2.2\) Role Permissions](#).
2. In the **New group** popup panel:
 - Enter a unique **Name** to distinguish the user group.

- Provide a user group **Description**.

The screenshot shows the 'Group Management' interface with a 'New group' modal open. The modal has a 'Name' field containing 'Group for AP Administrators' and a 'Description' field containing 'The group can manage Automation Processes'. A 'CREATE' button is located at the bottom right of the modal. In the background, a table lists existing groups with columns for Name and Description.

Name	Description
RP Administrators	RI
RW Minio Storage	Read/Wrote access to Minio Storage
RO Minio Storage	Read only access to Minio Storage
Monitors	Read-only system monitoring
Operators	Process work items
Developers	Developers
Nodes	Nodes

3. Click **CREATE**.

To combine users and assign roles to them:

- [Group Management#View/Edit Roles in a Group](#)
- [Group Management#View/Edit Users in a Group](#)

View/Edit a Group Properties

To view or edit group information, click the corresponding group row, make changes in the popup panel, and click **UPDATE**. Required Permissions: Group-READ,UPDATE. See [\(v. 2.2\) Role Permissions](#).

The screenshot shows the 'Group Management' interface with an 'Edit Group' modal open. The modal displays the 'Name' as 'RP Administrators' and the 'Description' as 'The group can manage all modules'. At the bottom of the modal, there are 'DETAILS' and 'UPDATE' buttons. In the background, the 'RP Administrators' group row is highlighted in the table.

Name	Description
Group for AP Administrators	The group can manage Automation Processes
RP Administrators	RI
RW Minio Storage	Read/Wrote access to Minio Storage
RO Minio Storage	Read only access to Minio Storage
Monitors	Read-only system monitoring
Operators	Process work items
Developers	Developers

View/Edit Roles in a Group

To view or edit roles in a group, click Name of a Group, or click the corresponding group row and click **DETAILS**:

Group Management / RP Administrators

Group Details ← Back to list ADD ROLE

Roles Users

Filter by text

Refresh Delete

<input type="checkbox"/>	Context ↓↑	Context Name ↓↑	Permissions	
<input type="checkbox"/>	Schedule	ALL	READ, UPDATE, DELETE, ACTION, CREATE	
<input type="checkbox"/>	SecretVault	ALL	READ, UPDATE, DELETE, ACTION, CREATE	
<input type="checkbox"/>	User	ALL	READ, UPDATE, DELETE, ACTION, CREATE	
<input type="checkbox"/>	AutomationProcess	ALL	READ, UPDATE, DELETE, ACTION, CREATE	
<input type="checkbox"/>	Channel	ALL	READ, UPDATE, DELETE, ACTION, CREATE	
<input type="checkbox"/>	Node	ALL	READ, UPDATE, DELETE, ACTION, CREATE	

Rows per page: 10 1-10 of 13

© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

Control Icons

- **ADD ROLE** - to add a role in the group. Required Permissions: Group-READ,UPDATE. See [\(v. 2.2\) Role Permissions](#).
- **Refresh** - to pull the last updates from the server via Refresh icon.
- **Delete** - to delete the selected role in the group (via the recycle bin control icon in the table row or Delete icon above the table). Required Permissions: Group-READ,UPDATE. See [\(v. 2.2\) Role Permissions](#).

Group Management / RP Administrators

Group Details ← Back to list ADD ROLE

Roles Users

Filter by text

Refresh Delete

<input type="checkbox"/>	Context ↓↑	Context Name ↓↑	Permissions	
<input type="checkbox"/>	Schedule	ALL	READ, UPDATE, DELETE, ACTION, CREATE	
<input type="checkbox"/>	SecretVault	ALL	READ, UPDATE, DELETE, ACTION, CREATE	
<input type="checkbox"/>	User	ALL	READ, UPDATE, DELETE, ACTION, CREATE	
<input type="checkbox"/>	AutomationProcess	ALL	READ, UPDATE, DELETE, ACTION, CREATE	
<input type="checkbox"/>	Channel	ALL	READ, UPDATE, DELETE, ACTION, CREATE	
<input type="checkbox"/>	Node	ALL	READ, UPDATE, DELETE, ACTION, CREATE	

Rows per page: 10 1-10 of 13

© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

When adding a role you are able to choose:

- **Context** - to specify what module you are going to manage. See [\(v. 2.2\) Role Permissions](#).

Group Management / RP Administrators

Group Details ← Back to list ADD ROLE

Roles Users

Filter by text Refresh Delete

<input type="checkbox"/>	Context ↓↑	Context Name ↓↑	Permissions	
<input type="checkbox"/>	Schedule	ALL	READ, UPDATE, DELETE, ACTION, CREATE	<input type="checkbox"/>
<input type="checkbox"/>	SecretVault	ALL	READ, UPDATE, DELETE, ACTION, CREATE	<input type="checkbox"/>
<input type="checkbox"/>	User	ALL	READ, UPDATE, DELETE, ACTION, CREATE	<input type="checkbox"/>
<input type="checkbox"/>	AutomationProcess	ALL	READ, UPDATE, DELETE, ACTION, CREATE	<input type="checkbox"/>
<input type="checkbox"/>	Channel	ALL	READ, UPDATE, DELETE, ACTION, CREATE	<input type="checkbox"/>
<input type="checkbox"/>	Node	ALL	READ, UPDATE, DELETE, ACTION, CREATE	<input type="checkbox"/>

Rows per page: 10 1-10 of 13

Context *

- AutomationProcess
- DataStore
- DocumentSet
- DocumentType
- Group
- HumanTaskType
- MIModel
- Node
- Schedule
- User
- Administration
- SecretVault
- Channel
- Template

© 2021 IBA Group. All rights reserved.

- **Context Name** - to choose all or a specific entity to manage.

Group Management / RP Administrators

Group Details ← Back to list ADD ROLE

Roles Users

Filter by text Refresh Delete

<input type="checkbox"/>	Context ↓↑	Context Name ↓↑	Permissions	
<input type="checkbox"/>	Schedule	ALL	READ, UPDATE, DELETE, ACTION, CREATE	<input type="checkbox"/>
<input type="checkbox"/>	SecretVault	ALL	READ, UPDATE, DELETE, ACTION, CREATE	<input type="checkbox"/>
<input type="checkbox"/>	User	ALL	READ, UPDATE, DELETE, ACTION, CREATE	<input type="checkbox"/>
<input type="checkbox"/>	AutomationProcess	ALL	READ, UPDATE, DELETE, ACTION, CREATE	<input type="checkbox"/>
<input type="checkbox"/>	Channel	ALL	READ, UPDATE, DELETE, ACTION, CREATE	<input type="checkbox"/>
<input type="checkbox"/>	Node	ALL	READ, UPDATE, DELETE, ACTION, CREATE	<input type="checkbox"/>

Rows per page: 10 1-10 of 13

New Context Role

Context *
DataStore

Context Name *

- All
- HT_SAMPLE_INPUT
HT Sample Input DS
- HT_SAMPLE_RESULT
- DS with many columns
Data Store with many columns
- DS with long data
Data store with long data
- Product
product Data Store

CREATE

© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

- **Role Permissions** - to select appropriate role permissions from the list. See (v. 2.2) Role Permissions.

Group Management / RP Administrators

Group Details ← Back to list ADD ROLE

Roles Users

Filter by text Refresh Delete

<input type="checkbox"/>	Context ↓↑	Context Name ↓↑	Permissions	
<input type="checkbox"/>	Schedule	ALL	READ, UPDATE, DELETE, ACTION, CREATE	<input type="checkbox"/>
<input type="checkbox"/>	SecretVault	ALL	READ, UPDATE, DELETE, ACTION, CREATE	<input type="checkbox"/>
<input type="checkbox"/>	User	ALL	READ, UPDATE, DELETE, ACTION, CREATE	<input type="checkbox"/>
<input type="checkbox"/>	AutomationProcess	ALL	READ, UPDATE, DELETE, ACTION, CREATE	<input type="checkbox"/>
<input type="checkbox"/>	Channel	ALL	READ, UPDATE, DELETE, ACTION, CREATE	<input type="checkbox"/>
<input type="checkbox"/>	Node	ALL	READ, UPDATE, DELETE, ACTION, CREATE	<input type="checkbox"/>

Rows per page: 10 1-10 of 13 |< < > >|

© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

Filter by text

Filtering allows you to search the role by the columns: Context, Context Name.

Sorting

Ascending/descending sorting is allowed by the columns: Context, Context Name.

View/Edit Users in a Group

To view or edit users in a group, click Name of a Group and open **Users** tab, or click the corresponding group row, click **DETAILS** and open **Users** tab:

Group Management / RP Administrators

Group Details ← Back to list ADD USER

Roles Users

Filter by text Refresh Delete

<input type="checkbox"/>	Username ↓↑	E-mail ↓↑	Full Name ↓↑	Status	Creation Date ↓	
<input type="checkbox"/>	easy_rpa_3	easy_rpa_3@itd.iba.by	easy_rpa_3 easy_rpa_3	Enabled	27.04.2021 11:46	<input type="checkbox"/>
<input type="checkbox"/>	easy_rpa_2	easy_rpa_2@itd.iba.by	easy_rpa_2 easy_rpa_2	Enabled	27.04.2021 11:45	<input type="checkbox"/>
<input type="checkbox"/>	easy_rpa_1	easy_rpa_1@itd.iba.by	easy_rpa_1 easy_rpa_1	Enabled	27.04.2021 11:45	<input type="checkbox"/>

Rows per page: 10 1-3 of 3 |< < > >|

© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

Control Icons

- **ADD USER** - to add a user in the group. Required Permissions: Group-READ,UPDATE and User-READ. See (v. 2.2) [Role Permissions](#).
- **Refresh** - to pull the last updates from the server via Refresh icon.

- **Delete** - to delete the selected user in the group (via the recycle bin control icon in the table row or Delete icon above the table) . Required Permissions: Group-READ,UPDATE. See (v. 2.2) [Role Permissions](#).

Group Management / RP Administrators

Group Details ← Back to list ADD USER

Roles Users

Filter by text

Refresh Delete

<input type="checkbox"/>	Username ↑↓	E-mail ↑↓	Full Name ↑↓	Status	Creation Date ↓	
<input type="checkbox"/>	easy_rpa_3	easy_rpa_3@itd.iba.by	easy_rpa_3 easy_rpa_3	Enabled	27.04.2021 11:46	<input type="checkbox"/>
<input type="checkbox"/>	easy_rpa_2	easy_rpa_2@itd.iba.by	easy_rpa_2 easy_rpa_2	Enabled	27.04.2021 11:45	<input type="checkbox"/>
<input type="checkbox"/>	easy_rpa_1	easy_rpa_1@itd.iba.by	easy_rpa_1 easy_rpa_1	Enabled	27.04.2021 11:45	<input type="checkbox"/>

Rows per page: 10 1-3 of 3 |< < > >|

© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

Filter by text

Filtering allows you to search the user by the columns: Username, E-mail, Full Name, Status.

Sorting

Ascending/descending sorting is allowed for the columns: Username, E-mail, Full Name, Creation Date.

Delete an Existing Group

To **delete** the user group, use the recycle bin control icon in the table row or Delete icon above the table. Required Permissions: Group-READ,DELETE. See (v. 2.2) [Role Permissions](#).

Group Management

Filter by text

Refresh Delete

CREATE NEW

<input type="checkbox"/>	Name ↑↓	Description ↑↓	
<input type="checkbox"/>	Group for AP Administrators	The group can manage Automation Processes	<input type="checkbox"/>
<input type="checkbox"/>	RP Administrators	The group can manage all modules	<input type="checkbox"/>
<input type="checkbox"/>	RW Minio Storage	Read/Wrote access to Minio Storage	<input type="checkbox"/>
<input type="checkbox"/>	RO Minio Storage	Read only access to Minio Storage	<input type="checkbox"/>
<input type="checkbox"/>	Monitors	Read-only system monitoring	<input type="checkbox"/>
<input type="checkbox"/>	Operators	Process work items	<input type="checkbox"/>
<input type="checkbox"/>	Developers	Developers	<input type="checkbox"/>

Rows per page: 10 1-9 of 9 |< < > >|

© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

(v. 2.2) Role Permissions

- [Role Permissions Description](#)
 - [AutomationProcess related](#)
 - [DataStore related](#)
 - [DocumentSet related](#)
 - [DocumentType related](#)
 - [Group related](#)
 - [HumanTaskType related](#)
 - [MIModel related](#)
 - [Node related](#)
 - [Schedule related](#)
 - [User related](#)
 - [Administration related](#)
 - [SecretVault related](#)
 - [Channel related](#)
 - [Template related](#)
- [Permission Restrictions](#)
 - [Main menu items are not displayed](#)
 - [Action buttons are disabled](#)

Role Permissions can be granted to the user while creating a new User Group or editing an existing one. See [\(v. 2.2\) Group Management](#).

The screenshot displays the 'Group Management / Department 1' interface. On the left, a sidebar contains navigation icons. The main area is titled 'Group Details' with a 'Back to list' link and an 'ADD ROLE' button. Below this, there are tabs for 'Roles' and 'Users'. A search bar labeled 'Filter by text' is present, along with 'Refresh' and 'Delete' buttons. A table lists roles with columns for 'Context', 'Context Name', and 'Permissions'. One role is listed: 'AutomationProcess' with 'ALL' context name and 'DELETE, READ, CREATE, UPDATE, ACTION' permissions. On the right, a 'New Context Role' modal is open, showing 'Node' as the context, 'All' as the context name, and a list of permissions: 'CREATE', 'READ', 'UPDATE', 'DELETE', and 'ACTION', all of which are checked. A 'CREATE' button is at the bottom right of the modal. The footer contains the copyright notice: '© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329'.

Role Permissions Description

All the Role Permissions are divided into groups according to relation to the modules in use.

There are the following Context types:

- AutomationProcess
- DataStore
- DocumentSet
- DocumentType
- Group
- HumanTaskType
- MIModel
- Node
- Schedule
- User
- Administration

- SecretVault
- Channel
- Template

There are five types of Role Permissions:

- READ
- CREATE
- UPDATE
- DELETE
- ACTION.

Each Context can be configured for a particular entity (i.e. Context Name) or for ALL scope. ALL scope applies to all entities (existing now or created in the future) of a given Context type. If Context type has READ permission configured for ALL scope and only UPDATE permission for a particular Context Name, overall permissions for this Context Name will be READ and UPDATE.

⚠ CREATE permission only applies in ALL scope.

One of the User Groups must be defined as Default group for a user (see (v. 2.2) [User Management](#)). Any entities created by the user will be automatically linked to the default User Group. It means that missing permissions in the default User Group are created for the entity. E.g. after a node "example" is created with role *Node-ALL-CREATE*, role *Node-example-DELETE*, *UPDATE*, *READ*, *ACTION* is added to the default User Group.

AutomationProcess related

⚠ The user should have at least READ permission of Channel and Template Context to create/update an automation process notification.

- **CREATE**
 - to create a new automation process.
 - to upload an automation process.
- **READ**
 - to view the list of automation processes.
 - to see the list of dedicated automation processes.
 - to view the Automation Process Details.
 - to save automation process as JSON file.
 - to view the list of automation process runs in the Automation Processes/Schedules/Node Management/Document Sets modules.
 - to view and manage an automation process run history.
 - to view and manage an automation process run event log.
 - to view the automation process configuration parameters.
 - to download automation process configuration parameters.
 - to view the automation process JSON input data.
 - to view the automation process notifications.
 - to navigate to Runs Management module and view the list of active runs.
- **UPDATE**
 - to update an existing automation process.
 - to delete an automation process run.
 - to add a new automation process configuration parameter.
 - to update an existing automation process configuration parameter.
 - to upload a new automation process configuration parameter.
 - to delete an existing automation process configuration parameter.
 - to update/upload input data.
 - to add a new automation process notification.
 - to update an existing automation process notification.
 - to delete an existing automation process notification.
- **DELETE**
 - to delete an existing automation process.
- **ACTION**
 - to start an automation process run.
 - to stop an automation process run.
 - to retry an automation process run.

DataStore related

- **CREATE**
 - to create/upload a new data store.

- **READ**
 - to view the list of data stores.
 - to download an existing data store.
 - to view the list of data store records (Data Stores Data Store Details).
 - to download the list of data store records (Data Stores Data Store Details).
- **UPDATE**
 - to update an existing data store.
 - to create a new data store record.
 - to update/delete an existing data store record.
- **DELETE**
 - to delete an existing data store.
- **ACTION**
 - backup permission for future usages.

DocumentSet related

⚠ The user should have at least READ permission of AutomationProcess and DocumentType Context to create/update a Document Set.

- **CREATE**
 - to create a new Document Set.
- **READ**
 - to view the list of Document Sets.
 - to view the Document Set details.
 - to export a Document Set.
 - to view the list of documents for a Document Set.
 - to view the document details and open output.
- **UPDATE**
 - to update an existing Document Set.
 - to upload documents.
 - to import a Document Set.
 - to edit an existing document.
 - to delete an existing document.
- **DELETE**
 - to delete an existing Document Set.
- **ACTION**
 - to run a process for documents using Process drop-down list.

DocumentType related

⚠ The user should have at least READ permission of HumanTaskType Context to view the list of document types in a Human Task Type and at least READ permission of Channel and Template Context to create/update a Document Type notification.

- **CREATE**
 - to create a Document Type (Human Task Types -> Human Task Type Details -> tab Document Types).
- **READ**
 - to view the list of document types (Human Task Types -> Human Task Type Details -> tab Document Types).
 - to view the Document Type details (Human Task Types -> Human Task Type Details -> tab Document Types).
 - to view the list of human tasks (Workspace module).
 - to start working with a human task (Workspace module).
 - to view the document type notifications (Human Task Types -> Human Task Type Details -> tab Document Types -> Document Type Notifications).
- **UPDATE**
 - to update a Document Type (Human Task Types -> Human Task Type Details -> tab Document Types).
 - to add a new Document Type notification (Human Task Types -> Human Task Type Details -> tab Document Types -> Document Type Notifications).
 - to update an existing Document Type notification (Human Task Types -> Human Task Type Details -> tab Document Types -> Document Type Notifications).
 - to delete an existing Document Type notification (Human Task Types -> Human Task Type Details -> tab Document Types -> Document Type Notifications).
- **DELETE**
 - to delete a Document Type (Human Task Types -> Human Task Type Details -> tab Document Types).
- **ACTION**
 - to accept a human task (Workspace module).

Group related

⚠ The user should have at least READ permission of User Context to add users in an existing user group

- **CREATE**
 - to create a user group.
 - to create a user group for the corresponding entity using Security Access.
- **READ**
 - to view the list of user groups.
 - to view the user group description.
 - to view the list of roles for an existing user group.
 - to view the list of users for an existing user group.
 - to view the list of groups (and roles) for the corresponding entity using Security Access.
- **UPDATE**
 - to update the user group description.
 - to add/update/delete roles in an existing user group.
 - to add/delete users in an existing user group.
 - to update an existing user group for the corresponding entity using Security Access.
- **DELETE**
 - to delete an existing user group.
- **ACTION**
 - backup permission for future usages.

HumanTaskType related

- **CREATE**
 - to create a human task type.
- **READ**
 - to view the list of human task types.
 - to view the human task type details.
 - to download application.
- **UPDATE**
 - to update an existing human task type.
- **DELETE**
 - to delete an existing human task type.
- **ACTION**
 - backup permission for future usages.

MIModel related

- **CREATE**
 - to import a model.
 - to train a new model.
- **READ**
 - to view the list of models.
 - to export ML Model Package and Training Config of an existing model.
 - to view model log.
- **UPDATE**
 - backup permission for future usages.
- **DELETE**
 - to delete an existing model.
- **ACTION**
 - backup permission for future usages.

Node related

 The user should have at least READ permission of Channel and Template Context to create/update a node notification.

- **CREATE**
 - to create a new node.
- **READ**
 - to view the list of nodes.
 - to view the Node Details.
 - to view the node configuration parameters list.
 - to download the node configuration parameters list.
 - to view the node features list.
 - to view a node feature configuration.
 - to view a node logs and node feature logs.
 - to view the node notifications.
- **UPDATE**
 - to update an existing node.

- to create a new node configuration parameter.
- to update an existing node configuration parameter.
- to upload a new node configuration parameter.
- to delete an existing node configuration parameter.
- to update a node feature configuration JSON.
- to import CSV with configuration parameters.
- to enable/disable a node feature.
- to add a new node notification.
- to update an existing node notification.
- to delete an existing node notification.
- **DELETE**
 - to delete an existing node.
- **ACTION**
 - to restart/shut down node.
 - to download node agent package.
 - to ping all nodes.
 - to upgrade node version.
 - to restart a node feature.

Schedule related

⚠ The user should have at least READ permission of AutomationProcess Context to create a Schedule and at least READ permission of Channel and Template Context to create/update a schedule notification.

- **CREATE**
 - to create a new schedule.
- **READ**
 - to view the list of schedules.
 - to view the Schedule Details.
 - to view the schedule notifications.
- **UPDATE**
 - to update/enable/disable an existing schedule.
 - to add a new schedule notification.
 - to update an existing schedule notification.
 - to delete an existing schedule notification.
- **DELETE**
 - to delete an existing schedule.
- **ACTION**
 - backup permission for future usages.

User related

⚠ The user should have at least READ permission of Group Context to create/update a user.

- **CREATE**
 - to create a new user.
- **READ**
 - to view the list of users.
 - to view user details.
 - to download Developer configuration.
- **UPDATE**
 - to update/enable/disable/restore an existing user.
- **DELETE**
 - to delete an existing user.
- **ACTION**
 - backup permission for future usages.

Administration related

- **CREATE**
 - to create/upload a new control server configuration parameter (the user should have READ permission of Administration Context).
 - to update an existing control server configuration parameter using upload with Override existing keys (the user should have READ permission of Administration Context).
- **READ**
 - to navigate to Control Server Configuration module.
 - to download control server configuration parameters.

- to navigate to Activity Log module and view the activity log history (the user should have READ permission of an appropriate module to view current record state).
- to view and manage Control Server Logs.
- to view current info for an existing license.
- **UPDATE**
 - to update an existing control server configuration parameter using right-side panel (the user should have READ permission of Administration Context).
 - to upload a license.
 - to update an existing license.
- **DELETE**
 - to delete an existing control server configuration parameter (the user should have READ permission of Administration Context).
- **ACTION**
 - backup permission for future usages.

SecretVault related

- **CREATE**
 - to create/upload a new secret vault entry.
 - to update an existing secret vault entry using upload with Override existing keys.
- **READ**
 - to view the list of secret vault entries.
- **UPDATE**
 - to update an existing secret vault entry using right-side panel.
- **DELETE**
 - to delete an existing secret vault entry.
- **ACTION**
 - backup permission for future usages.

Channel related

- **CREATE**
 - to create a new channel.
- **READ**
 - to view the list of channels.
- **UPDATE**
 - to update an existing channel.
- **DELETE**
 - to delete an existing channel.
- **ACTION**
 - backup permission for future usages.

Template related

- **CREATE**
 - to create a new template.
 - to validate the template being created.
- **READ**
 - to view the list of templates.
 - to validate an existing template.
- **UPDATE**
 - to update an existing template.
- **DELETE**
 - to delete an existing template.
- **ACTION**
 - backup permission for future usages.

Permission Restrictions

When a user has a Role without appropriate Permissions, the following restrictions can be applied to the user interface:

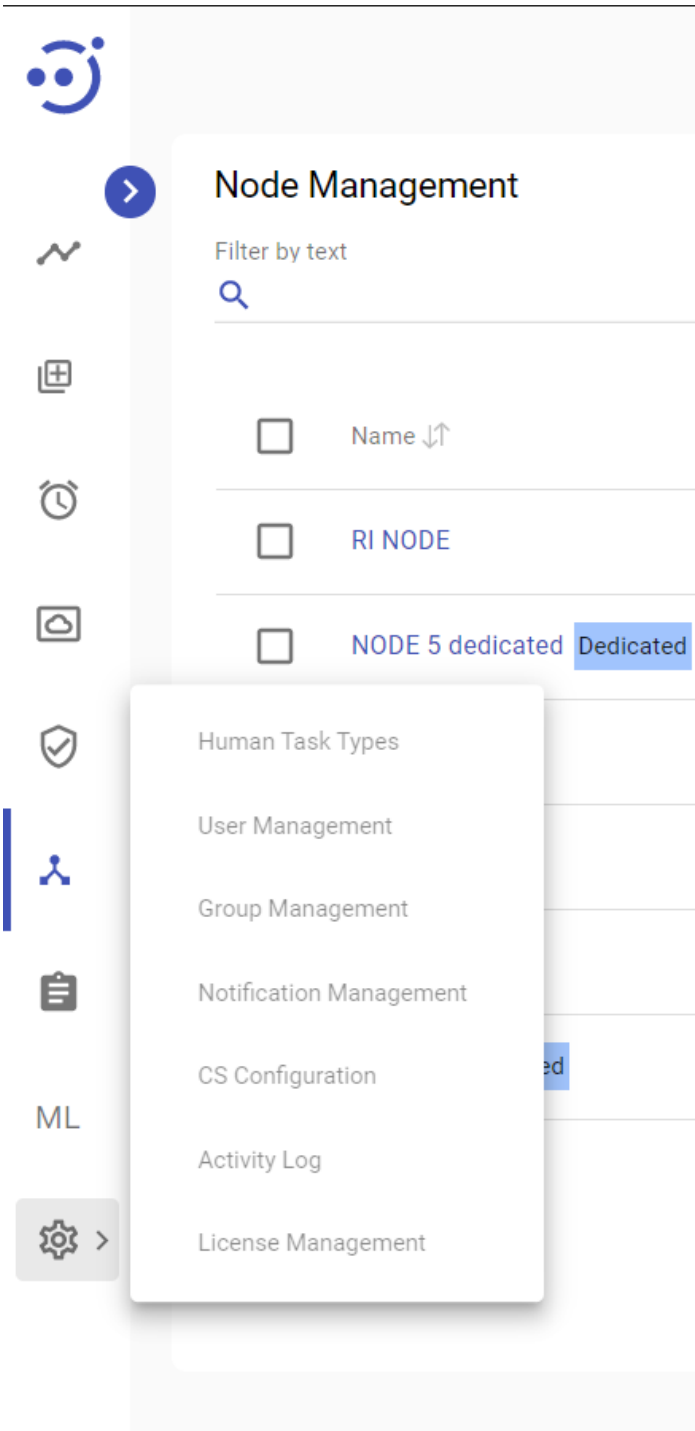
Main menu items are not displayed

- Restricted Permissions:

The screenshot shows a web interface for Node Management. On the left is a navigation sidebar with a blue header icon and a user icon. The main content area is titled "Node Management" and includes a search filter "Filter by text" with a magnifying glass icon. Below the filter is a list of nodes, each with a checkbox and a label. The labels are: "Name ↓↑", "RI NODE", "NODE 5 dedicated Dedicated", "NODE 4", "NODE 3", "NODE 2", and "NODE 1 Dedicated". The "Dedicated" labels are highlighted in blue.

<input type="checkbox"/>	Name ↓↑
<input type="checkbox"/>	RI NODE
<input type="checkbox"/>	NODE 5 dedicated Dedicated
<input type="checkbox"/>	NODE 4
<input type="checkbox"/>	NODE 3
<input type="checkbox"/>	NODE 2
<input type="checkbox"/>	NODE 1 Dedicated

- All Permissions:



Action buttons are disabled

- Restricted Permissions:

Group Management

Filter by text

Refresh Delete

<input type="checkbox"/> Name ↑↓	Description ↑↓	
<input type="checkbox"/> RP Administrators		
<input type="checkbox"/> RW Minio Storage	Read/Wrote access to Minio Storage	
<input type="checkbox"/> RO Minio Storage	Read only access to Minio Storage	
<input type="checkbox"/> Monitors	Read-only system monitoring	
<input type="checkbox"/> Operators	Process work items	

Rows per page: 5 1-5 of 8 |< < > >|

© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

• All Permissions:

Group Management

Filter by text

Refresh Delete

<input type="checkbox"/> Name ↑↓	Description ↑↓	
<input type="checkbox"/> RP Administrators		
<input type="checkbox"/> RW Minio Storage	Read/Wrote access to Minio Storage	
<input type="checkbox"/> RO Minio Storage	Read only access to Minio Storage	
<input type="checkbox"/> Monitors	Read-only system monitoring	
<input type="checkbox"/> Operators	Process work items	

Rows per page: 5 1-5 of 8 |< < > >|

© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

(v. 2.2) Security Access

- [Create a new Group for an entity](#)
- [Add an entity to a Group](#)
- [View/Edit a Group](#)

To view the list of groups (and roles) for the corresponding entity using Security Access, you need to be granted Group-READ permission. See [\(v. 2.2\) Role Permissions](#).

To manage a group for a specific entity, click Security Access icon in the table row in of the following modules:

- [\(v. 2.2\) Automation Processes](#)
- [\(v. 2.2\) Schedules](#)
- [\(v. 2.2\) Data Stores](#)
- [\(v. 2.2\) Secret Vault](#)
- [\(v. 2.2\) Node Management](#)
- [\(v. 2.2\) Document Sets](#)
- [\(v. 2.2\) Models](#)
- [\(v. 2.2\) Human Task Types](#)
- [\(v. 2.2\) Document Types](#)
- [\(v. 2.2\) User Management](#)
- [Channels](#)
- [Templates](#)

The screenshot shows a table titled "Automation Processes" with the following data:

<input type="checkbox"/>	Name ↑↓	Capabilities	Created By	Creation Date ↓	Changed By	Last Update ↑↓			
<input type="checkbox"/>	Invoice Plane Automation DED2		System Admin	14.06.2021 12:53	System Admin	14.06.2021 12:59	↓	👤	🗑️
<input type="checkbox"/>	Invoice Plane Automation DED		System Admin	14.06.2021 12:46	System Admin	14.06.2021 12:59	↓	👤	🗑️
<input type="checkbox"/>	Debtor Analysis		Raman Ilyuchyuk	14.06.2021 10:19	Raman Ilyuchyuk	14.06.2021 10:19	↓	👤	🗑️
<input type="checkbox"/>	JNLP/WebStart Demo		Raman Ilyuchyuk	14.06.2021 09:51	Raman Ilyuchyuk	14.06.2021 09:51	↓	👤	🗑️
<input type="checkbox"/>	IDP Sample		System Admin	14.06.2021 09:45	System Admin	14.06.2021 09:45	↓	👤	🗑️
<input type="checkbox"/>	IE Document Processor for RI Sets		Raman Ilyuchyuk	11.06.2021 17:01	Raman Ilyuchyuk	11.06.2021 17:02	↓	👤	🗑️
<input type="checkbox"/>	SAP Material Management	NODE1	System Admin	11.06.2021 15:57	Raman Ilyuchyuk	14.06.2021 10:30	↓	👤	🗑️

⚠️ Groups that already have a Context Role with ALL Context Name (see [View/Edit Roles in a Group](#)) for the module are displayed and cannot be deleted for the entity. If a Group has a Context Role with ALL Context Name for the module and a permission, the permission is already granted for the entity.

Group Management (Debtor Analysis AutomationProcess) ← Back to list

Filter by text

Refresh Delete

Name	Description	Permissions
Department 2		READ, UPDATE
Department 1		READ
VLgroup2		CREATE
Monitors	Read-only system monitoring	READ
Developers	Developers	CREATE, ACTION, READ, UPDATE
Nodes	Nodes	CREATE, ACTION, READ, DELETE, UPDATE
Administrators	Administrators	CREATE, ACTION, READ, DELETE, UPDATE

Rows per page: 10 1-7 of 7

© 2021 IBA Group. All rights reserved. v2.1.0-37340/2.1-SNAPSHOT-37370

Edit Group

Name *
Department 1

Description

Context Role

Context *
AutomationProcess

Context Name *
Debtor Analysis

Role Permissions * CHECK ALL

CREATE

READ

UPDATE

DELETE

ACTION

DETAILS UPDATE

⚠️ **CREATE** permission only applies in ALL scope (see (v. 2.2) Role Permissions). **CREATE** permission cannot be used to create a new Group for an entity (see [Create a new Group for an entity](#)) or edit an existing Group (see [Add an entity to a Group](#) and [View/Edit a Group](#)).

Group Management (Debtor Analysis AutomationProcess) ← Back to list

Filter by text

Refresh Delete

Name	Description	Permissions
Department 2		READ, UPDATE
Department 1		READ
VLgroup2		CREATE
Monitors	Read-only system monitoring	READ
Developers	Developers	CREATE, ACTION, READ, UPDATE
Nodes	Nodes	CREATE, ACTION, READ, DELETE, UPDATE
Administrators	Administrators	CREATE, ACTION, READ, DELETE, UPDATE

Rows per page: 10 1-7 of 7

© 2021 IBA Group. All rights reserved. v2.1.0-37340/2.1-SNAPSHOT-37370

Edit Group

Name *
Department 2

Description

Context Role

Context *
AutomationProcess

Context Name *
Debtor Analysis

Role Permissions * CHECK ALL

CREATE

READ

UPDATE

DELETE

ACTION

DETAILS UPDATE

Control Icons

- **Show all groups** - to show all groups.
- **ADD** - to add an entity role to an existing group. See [Add an entity to a Group](#)
- **CREATE NEW** - to create a new group for the entity. See [Create a new Group for an entity](#)
- **Refresh** - to pull the last updates from the server via Refresh icon.
- **Delete** - to delete the selected group (via the recycle bin control icon in the table row or Delete icon above the table).

Group Management (Debtor Analysis AutomationProcess) ← Back to list

Filter by text

Refresh Delete

Show all groups ADD CREATE NEW

Name	Description	Permissions
Department 2		READ, UPDATE
Department 1		READ
VLgroup2		CREATE
Monitors	Read-only system monitoring	READ
Developers	Developers	CREATE, ACTION, READ, UPDATE
Nodes	Nodes	CREATE, ACTION, READ, DELETE, UPDATE
Administrators	Administrators	CREATE, ACTION, READ, DELETE, UPDATE

Rows per page: 10 1-7 of 7

© 2021 IBA Group. All rights reserved. v2.1.0-37340/2.1-SNAPSHOT-37370

Filter by text

Filtering allows you to search the group by the columns: Name, Description.

Sorting

Ascending/descending sorting is allowed by the columns: Name, Description.

Create a new Group for an entity

To create a new Group for an entity, click **CREATE NEW**, fill in the required fields on the New group right-side panel and click **CREATE**. Required Permissions: Group-READ,CREATE. See (v. 2.2) [Role Permissions](#).

Group Management (Debtor Analysis AutomationProcess) ← Back to list

Filter by text

Refresh Delete

Show all groups ADD CREATE NEW

Name	Description	Permissions
Department 2		READ, UPDATE
Department 1		READ
VLgroup2		CREATE
Monitors	Read-only system monitoring	READ
Developers	Developers	CREATE, ACTION, READ, UPDATE
Nodes	Nodes	CREATE, ACTION, READ, DELETE, UPDATE
Administrators	Administrators	CREATE, ACTION, READ, DELETE, UPDATE

Rows per page: 10 1-7 of 7

© 2021 IBA Group. All rights reserved. v2.1.0-37340/2.1-SNAPSHOT-37370

New group

Name *
Department 3

Description

Context Role
Context *
AutomationProcess

Context Name *
Debtor Analysis

Role Permissions * CHECK ALL

CREATE

READ

UPDATE

DELETE

ACTION

CREATE

Add an entity to a Group

To add an entity to an existing Group, click **ADD**, fill in the required fields on the Add Context Role right-side panel and click **UPDATE**. Required Permissions: Group-READ,UPDATE. See (v. 2.2) [Role Permissions](#).

The screenshot shows the 'Group Management (Debtor Analysis AutomationProcess)' interface. The main table lists groups with columns for Name, Description, and Permissions. The 'Add Context Role' panel on the right is highlighted with a red box and contains the following fields:

- Groups *: Department 4
- Context Role
- Context *: AutomationProcess
- Context Name *: Debtor Analysis
- Role Permissions *: CHECK ALL
- CREATE
- READ
- UPDATE
- DELETE
- ACTION
- UPDATE button

⚠ Groups list contains only groups that do not have a granted role for the entity (or ALL Context Name for the module).

View/Edit a Group

To view or edit an existing group with the corresponding Context Role, click the corresponding group row, make changes on the Edit Group right-side panel, and click **UPDATE**. Required Permissions: Group-READ,UPDATE. See (v. 2.2) [Role Permissions](#).

The screenshot shows the 'Group Management (Debtor Analysis AutomationProcess)' interface. The main table lists groups with columns for Name, Description, and Permissions. The 'Edit Group' panel on the right is highlighted with a red box and contains the following fields:

- Name *: Department 4
- Description
- Context Role
- Context *: AutomationProcess
- Context Name *: Debtor Analysis
- Role Permissions *: CHECK ALL
- CREATE
- READ
- UPDATE
- DELETE
- ACTION
- DETAILS button
- UPDATE button

(v. 2.2) Notification Management

- Channels
 - Create a new channel
 - Edit an existing channel
- Templates
 - Create a new template
 - Edit an existing template
 - Validate template
- Examples of templates

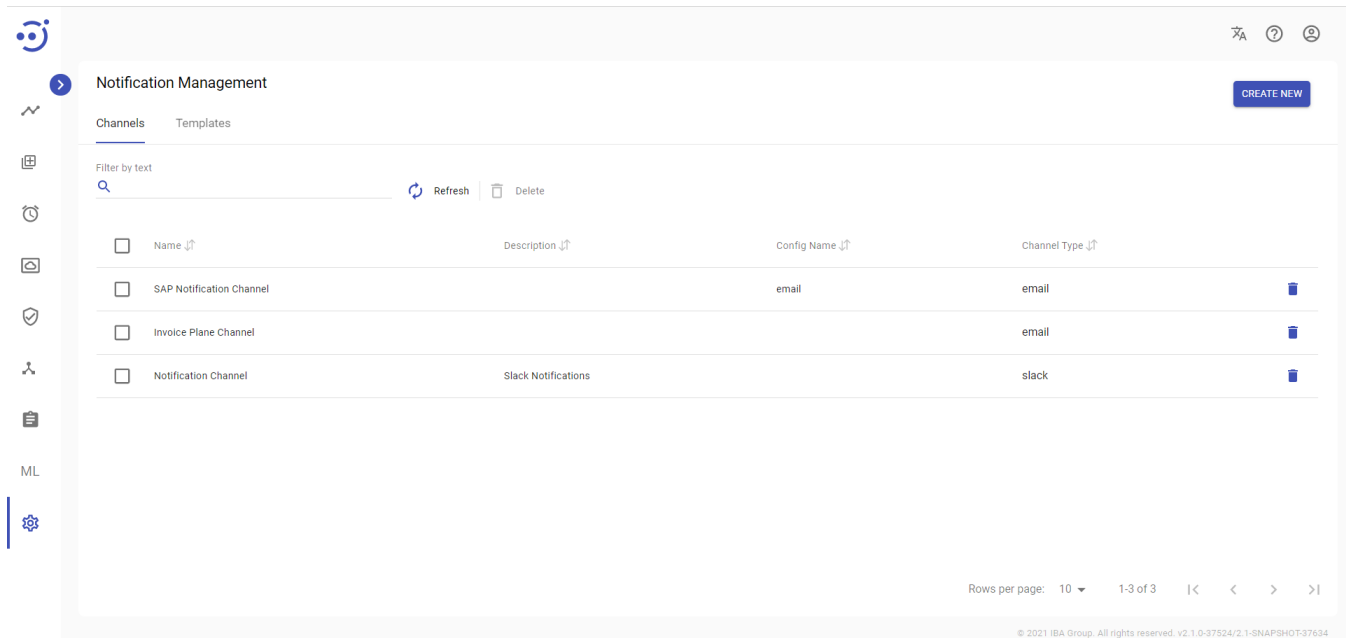
The Notification Management module allows users to set up channels and examples for receiving messages about Control server activities: Automation processes, Schedules, Nodes, and Human tasks.

You can access the module by clicking **Administration Notification Management**. Required Permission: Channel-READ and Template-READ. See (v. 2.2) [Role Permissions](#).

Channels

Channels allows configuring the address of the final recipient of the notifications. You are able to set notifications for email and slack (see **Notification Service**).

Also to receive results of some Automation processes (for example, Debtor Analysis, SAP Material Management) you need to add channels with the name that are specified in the Automation process configuration parameters. Option sending results is configured by developers; the templates are included in the AP package and loaded with upload button in Automation Process module.



The screenshot shows the 'Notification Management' interface. It has a sidebar with navigation icons and a main content area. The main area has tabs for 'Channels' and 'Templates'. Below the tabs is a search bar labeled 'Filter by text' with a search icon, a 'Refresh' button, and a 'Delete' button. The main content is a table with the following columns: Name, Description, Config Name, and Channel Type. There are three rows of data:

Name	Description	Config Name	Channel Type
SAP Notification Channel		email	email
Invoice Plane Channel			email
Notification Channel	Slack Notifications		slack

At the bottom right of the table, there is a 'Rows per page: 10' dropdown and '1-3 of 3' with navigation arrows. At the very bottom, there is a copyright notice: '© 2021 IBA Group. All rights reserved. v2.1.0-37524/2.1-SNAPSHOT-37634'.

Columns Description:

- **Name** - the template name.
- **Description** - a short description of the template.
- **Config Name** - specify additional parameters to configure multiple channels for the notifications.
⚠ For config name must be specified settings in CS configuration and *notification.channels.config*. See **Notification Service**.
- **Channel Type** - define, where to send notifications: email or slack.

Filter by text

Filtering allows you to search the channel by the columns: Name, Description, Channel Type.

Sorting

Ascending/descending sorting is allowed for the columns: Name, Description, Config Name, Channel Type.

Control icons

- **Refresh** - to refresh the page.
- **Delete** an existing channel via the recycle bin control icon in the table row or Delete icon above the table. Required Permission: Channel-DELETE. See (v. 2.2) [Role Permissions](#).

The screenshot shows the 'Notification Management' interface. At the top right, there is a 'CREATE NEW' button. Below it, there are tabs for 'Channels' and 'Templates'. A search bar labeled 'Filter by text' is present. Below the search bar, there are 'Refresh' and 'Delete' icons. The main area contains a table with the following columns: Name, Description, Config Name, and Channel Type. The table lists three channels: 'SAP Notification Channel' (email), 'Invoice Plane Channel' (email), and 'Notification Channel' (Slack Notifications). Each row has a checkbox on the left and a trash can icon on the right. The trash can icon for the 'SAP Notification Channel' is highlighted with a red box. At the bottom right, there is a 'Rows per page' dropdown set to 10, and a page indicator '1-3 of 3'.

⚠ Channel can't be deleted if it's used in any module.

Create a new channel

To create a channel:

1. Go to the **Administration Notification Management** module **Channels** tab and click **CREATE NEW**. Required Permission: Channel-CREATE. See (v. 2.2) [Role Permissions](#).

The screenshot shows the 'Notification Management' interface, similar to the previous one. The 'CREATE NEW' button is highlighted with a red box. The table below it lists the same three channels: 'SAP Notification Channel' (email), 'Invoice Plane Channel' (email), and 'Notification Channel' (Slack Notifications). The trash can icons are visible but not highlighted.

2. In the **New Channel** popup panel enter:

- **Name**,
- **Description** (optionally),
- **Channel Type** - email or slack,
- **Recipients** - if Channel Type is email, emails should be from the host added to the Control Server Configuration; if Channel Type is slack, you should add slack channel ID to the Recipients and check that token is added to the Control Server Configuration. See **Notification Service**.

- **Config Name** (optionally).

3. Click **CREATE**.

The screenshot displays the 'Notification Management' interface. On the left, there is a sidebar with navigation icons. The main area shows a 'Channels' tab with a table of existing channels. A 'CREATE NEW' button is visible in the top right of the main area. A 'New Channel' popup form is open on the right, with a red border. The form contains the following fields:

- Name ***: IE Notification Channel
- Description**: (empty)
- Config Name**: email
- Channel Type ***: email
- Recipients**: DTrotskaya@ibagroup.eu

The 'Recipients' section shows a search bar and a 'New recipient' field with a checkmark. A 'CREATE' button is at the bottom right of the popup, with a red arrow pointing to it. The table below shows three channels:

Name	Description	Config Name	Channel Type
SAP Notification Channel		email	email
Invoice Plane Channel			email
Notification Channel	Slack Notifications		slack

Edit an existing channel

To edit a channel:

1. Go to the **Administration Notification Management** module **Channels** tab and click record with created Channel. Required Permission: Channel-UPDATE. See (v. 2.2) [Role Permissions](#).
2. In the **Edit Channel** popup panel change:
 - **Name**,
 - **Description** (optionally),
 - **Channel Type** - email or slack,
 - **Recipients** - if Channel Type is email, emails should be specified in domain company according to *notification.channels.config* in the Control Server Configuration; if Channel Type is slack, you should add slack channel ID to the Recipients and check that token is added to the Control Server Configuration. See **Notification Service**.
 - **Config Name** (optionally).

3. Click **UPDATE**.

The screenshot shows the 'Notification Management' interface with the 'Channels' tab selected. A table lists notification channels, with 'SAP Notification Channel' highlighted. A red arrow points to this row. An 'Edit Channel' modal is open on the right, showing the configuration for the selected channel. The modal includes fields for Name, Description, Config Name, and Channel Type. The 'Recipients' section shows a search bar and a list of recipients, including 'JMorozova@ibagroup.eu'. A red arrow points to the 'UPDATE' button at the bottom right of the modal.

Name	Description	Config Name	Channel Type
SAP Notification Channel		email	email
Invoice Plane Channel			email
Notification Channel	Slack Notifications		slack

Name *	Config Name	Channel Type *
SAP Notification Channel	email	slack

Recipients: JMorozova@ibagroup.eu

Templates

User is able to design and validate a template containing the information that will be received in the notification. It is currently possible to receive a notification about the **Automation Process, Node, Document Type, or Schedule**.

The screenshot shows the 'Notification Management' interface with the 'Templates' tab selected. A table lists notification templates, with columns for Name, Description, and Template Type. The table contains five rows of templates. A 'CREATE NEW' button is visible in the top right corner.

Name	Description	Template Type
SAP Email Template	SAP Analysis Email Template	FreeMarker
luffy template		ThymeleafText
VL AP templ		ThymeleafHtml
V test 1 new assigned		ThymeleafHtml
VL node template	example	ThymeleafHtml

Columns Description:

- **Name** - the template name.
- **Description** - a short description of the template.
- **Template Type** - a template writing format.

Filter by text

Filtering allows you to search the template by the columns: Name, Description, Template Type.

Sorting

Ascending/descending sorting is allowed for the columns: Name, Description, Template Type.

Control icons

- **Refresh** - to refresh the page.
- **Delete** an existing template via the recycle bin control icon in the table row or Delete icon above the table. Required Permission: Template-DELETE. See (v. 2.2) [Role Permissions](#).
- **Open template details** of a current template via icon in the table row.

The screenshot shows the 'Notification Management' interface with the 'Templates' tab selected. A search bar is present with 'Filter by text' and a search icon. Below the search bar, there are 'Refresh' and 'Delete' icons. The table below has columns for 'Name', 'Description', and 'Template Type'. The table contains five rows of templates. The first row is 'SAP Email Template' with description 'SAP Analysis Email Template' and type 'FreeMarker'. The second row is 'luffy template' with type 'ThymeleafText'. The third row is 'VL AP templ' with type 'ThymeleafHtml'. The fourth row is 'V test 1 new assigned' with type 'ThymeleafHtml'. The fifth row is 'VL node template' with description 'example' and type 'ThymeleafHtml'. Each row has a checkbox on the left and two icons on the right: a pencil icon for editing and a trash can icon for deleting. A 'CREATE NEW' button is located in the top right corner. At the bottom right, there is a pagination control showing 'Rows per page: 10' and '1-5 of 5'.

Name	Description	Template Type
SAP Email Template	SAP Analysis Email Template	FreeMarker
luffy template		ThymeleafText
VL AP templ		ThymeleafHtml
V test 1 new assigned		ThymeleafHtml
VL node template	example	ThymeleafHtml

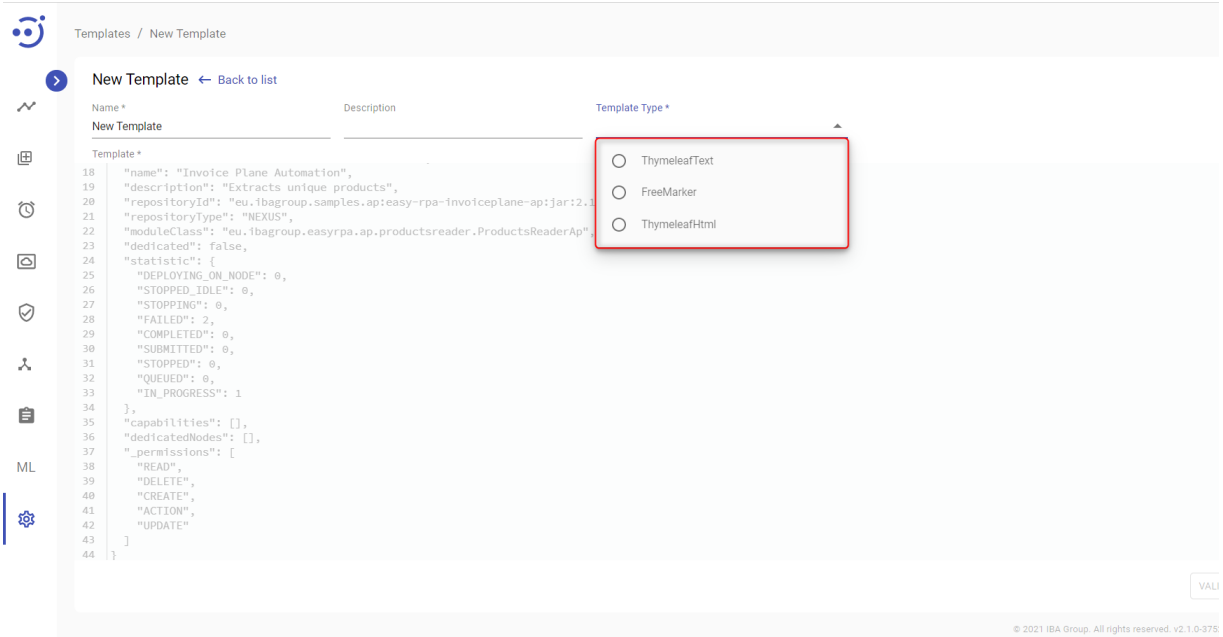
Create a new template

To create a template:

1. Go to the **Administration Notification Management** module **Templates** tab and click **CREATE NEW**. Required Permission: Template-CREATE. See (v. 2.2) [Role Permissions](#).

This screenshot is identical to the one above, but with a red box highlighting the 'CREATE NEW' button in the top right corner of the interface.

2. In the **New Template** page:
 - Enter **Name**, **Description** (optionally),
 - Choose **Template Type** - ThymeleafText, FreeMarker, or ThymeleafHtml



- make **Template** according to selected Template Type

- ThymeleafHtml - allows to make a template using HTML standard, including HTML5, HTML 4, and XHTML. Validation is not performed, and the code/structure of the original template will be followed to the maximum extent possible. Note, that for slack channel better to use other 2 template types.

- ThymeleafText - allows to use a special syntax for templates without markup. Examples of such templates can be text messages or template documents. Note, that HTML or XML templates can also be processed as TEXT, in which case the markup is not parsed, and each tag, DOCTYPE, comment, and so on will be treated as plain text. Read more about template modes [here](#). Also useful documentation about Thymeleaf dialect is [here](#).

- FreeMarker - template engine: a Java library for generating text output (HTML pages, xml, configuration files, source code, etc.). The input is a template, for example, html, which contains special expressions, prepares data corresponding to this expression, where Freemarker dynamically inserts this data and a dynamically filled document is obtained. Getting started manual is [here](#).

To check what information will be taken for your notification see the Validate template section below. At the end of the page are examples in ThymeleafText format.

4. Click **CREATE**.

Templates / New Template

New Template ← Back to list

Name *	Description	Template Type *
New Template		FreeMarker

```
1 {
2   "_permissions": [
3     "string"
4   ],
5   "capabilities": [
6     "string"
7   ],
8   "dedicated": true,
9   "dedicatedNodes": [
10    "string"
11  ],
12  "description": "This process automates a lot of work...",
13  "id": 0,
14  "input": {
15    "_id": "string",
16    "variables": {}
17  },
18  "moduleClass": "eu.fbagroup.easyrpa.demo.FiveStepsDemoModule",
19  "name": "Test Process",
20  "params": [
21    {
22      "key": "string",
23      "value": "string"
24    }
25  ],
26  "repositoryId": "eu.fbagroup:easy-rpa-sample:jar:full:0.1-SNAPSHOT",
27  "repositoryType": "NEXUS"
28 }
```

VALIDATE CREATE

© 2021 IBA Group. All rights reserved. v2.1.0-37524/2.1-SNAPSHOT

Edit an existing template

To edit a template:

1. Go to the **Administration Notification Management** module **Templates** tab and click the **Open Template Details** icon in the row. Required Permission: Template-UPDATE. See (v. 2.2) [Role Permissions](#).
2. In the **Edit Template** page:
 - **Edit Name, Template Type and Template, Description** (optionally). See more details about Template Type and Template in the Create a new template section
3. Click **UPDATE**.

Templates / New Template

Edit Template ← Back to list

Name *	Description	Template Type *
New Template		FreeMarker

```
17 "uuid": "d0229b62-06e3-45a0-bb3d-e8757614c912",
18 "name": "Invoice Plane Automation",
19 "description": "Extracts unique products",
20 "repositoryId": "eu.fbagroup.samples.ap:easy-rpa-invoicePlane-ap:jar:2.1-SNAPSHOT",
21 "repositoryType": "NEXUS",
22 "moduleClass": "eu.fbagroup.easyrpa.ap.productsreader.ProductsReaderAp",
23 "dedicated": false,
24 "statistic": {
25   "DEPLOYING_ON_NODE": 0,
26   "STOPPED_IDLE": 0,
27   "STOPPING": 0,
28   "FAILED": 2,
29   "COMPLETED": 0,
30   "SUBMITTED": 0,
31   "STOPPED": 0,
32   "QUEUED": 0,
33   "IN_PROGRESS": 1
34 },
35 "capabilities": [],
36 "dedicatedNodes": [],
37 "_permissions": [
38   "READ",
39   "DELETE",
40   "CREATE",
41   "ACTION"
42 ]
43 }
```

VALIDATE UPDATE

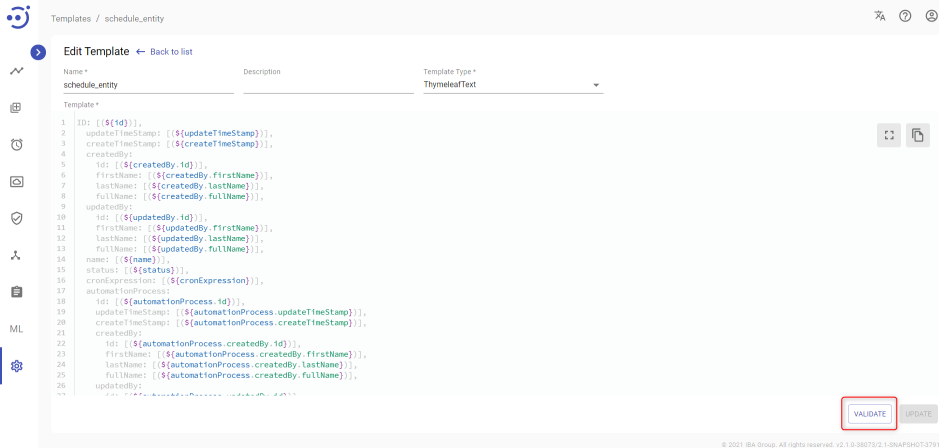
© 2021 IBA Group. All rights reserved. v2.1.0-37524/2.1-SNAPSHOT-37634

Validate template

This functionality allows user to validate created template, its format, see what information will be taken if you use special expressions. User can validate templates during developing or editing a template.

To validate template during creating or editing:

1. Go to the **Administration Notification Management** module **Templates** tab and click **CREATE NEW** button or open an existing template via **Open Template Details** icon in the row. Required Permission: Template-CREATE. See (v. 2.2) [Role Permissions](#).
2. Click **Validate**. Validate template modal opens.



3. In the **Validate Entity** field select a module: Automation Process, Node, Document Type, or Schedule.
4. **Validation Settings** section contains response to the GET request in JSON format with information about selected Validate Entity. Note, real request and response can be different, required for check format and results created template according to information in the validate settings. If necessary, user can change Validation Settings. The changes made are saved, when you click **CLOSE**.
5. Click **VALIDATE**.



Examples of templates

- Automation Process

Automation Process Template Example


```

ID: [({id})],
updateTimeStamp: [({updateTimeStamp})],
createTimeStamp: [({createTimeStamp})],
createdBy:
id: [({createdBy.id})],
firstName: [({createdBy.firstName})],
lastName: [({createdBy.lastName})],
fullName: [({createdBy.fullName})],
updatedBy:
id: [({updatedBy.id})],
firstName: [({updatedBy.firstName})],
lastName: [({updatedBy.lastName})],
fullName: [({updatedBy.fullName})],
uuid: [({uuid})],
status: [({status})],
runUuid: [({runUuid})],
apUuid: [({apUuid})],
automationProcess:
id: [({automationProcess.id})],
updateTimeStamp: [({automationProcess.updateTimeStamp})],
createTimeStamp: [({automationProcess.createTimeStamp})],
createdBy:
id: [({automationProcess.createdBy.id})],
firstName: [({automationProcess.createdBy.firstName})],
lastName: [({automationProcess.createdBy.lastName})],
fullName: [({automationProcess.createdBy.fullName})],
updatedBy:
id: [({automationProcess.updatedBy.id})],
firstName: [({automationProcess.updatedBy.firstName})],
lastName: [({automationProcess.updatedBy.lastName})],
fullName: [({automationProcess.updatedBy.fullName})],,
uuid: [({automationProcess.uuid})],
name: [({automationProcess.name})],
description: [({automationProcess.description})],
repositoryId: [({automationProcess.repositoryId})],
moduleClass: [({automationProcess.moduleClass})],
dedicated: [({automationProcess.dedicated})],
statistic: [# th:if="{automationProcess.statistic.isEmpty()}"-[/][# th:each="statistic : {automationProcess.
statistic}" ]
[({statistic.key})] - [({statistic.value})][/]
capabilities: [# th:if="{#lists.isEmpty(automationProcess.capabilities)}"-[/][# th:each="cap :
{automationProcess.capabilities}" ]
[({cap})][/]
dedicatedNodes: [# th:if="{#lists.isEmpty(automationProcess.dedicatedNodes)}"-[/][# th:each="node :
{automationProcess.dedicatedNodes}" ]
[({node})][/]

```

- Schedule

Schedule Template Example

```

ID: [({id})],
updateTimeStamp: [({updateTimeStamp})],
createTimeStamp: [({createTimeStamp})],
createdBy:
id: [({createdBy.id})],
firstName: [({createdBy.firstName})],
lastName: [({createdBy.lastName})],
fullName: [({createdBy.fullName})],
updatedBy:
id: [({updatedBy.id})],
firstName: [({updatedBy.firstName})],
lastName: [({updatedBy.lastName})],
fullName: [({updatedBy.fullName})],
name: [({name})],
status: [({status})],
cronExpression: [({cronExpression})],
automationProcess:

```

```

id: [({automationProcess.id})],
updateTimeStamp: [({automationProcess.updateTimeStamp})],
createTimeStamp: [({automationProcess.createTimeStamp})],
createdBy:
id: [({automationProcess.createdBy.id})],
firstName: [({automationProcess.createdBy.firstName})],
lastName: [({automationProcess.createdBy.lastName})],
fullName: [({automationProcess.createdBy.fullName})],
updatedBy:
id: [({automationProcess.updatedBy.id})],
firstName: [({automationProcess.updatedBy.firstName})],
lastName: [({automationProcess.updatedBy.lastName})],
fullName: [({automationProcess.updatedBy.fullName})],,
uuid: [({automationProcess.uuid})],
name: [({automationProcess.name})],
description: [({automationProcess.description})],
repositoryId: [({automationProcess.repositoryId})],
repositoryType: [({automationProcess.repositoryType})],
moduleClass: [({automationProcess.moduleClass})],
dedicated: [({automationProcess.dedicated})],
statistic: [# th:if="({automationProcess.statistic.isEmpty()})"-[/] [# th:each="statistic : {automationProcess.
statistic}" ]
[({statistic.key})] - [({statistic.value})][/]
capabilities: [# th:if="({#lists.isEmpty(automationProcess.capabilities)})"-[/] [# th:each="cap :
{automationProcess.capabilities}" ]
[({cap})][/]
dedicatedNodes: [# th:if="({#lists.isEmpty(automationProcess.dedicatedNodes)})"-[/] [# th:each="node :
{automationProcess.dedicatedNodes}" ]
[({node})][/]
startDate: [({startDate})],
endDate: [({endDate})]

```

- Node

Node Template Example

```

ID: [({id})],
updateTimeStamp: [({updateTimeStamp})],
createTimeStamp: [({createTimeStamp})],
createdBy:
id: [({createdBy.id})],
firstName: [({createdBy.firstName})],
lastName: [({createdBy.lastName})],
fullName: [({createdBy.fullName})],
updatedBy:
id: [({updatedBy.id})],
firstName: [({updatedBy.firstName})],
lastName: [({updatedBy.lastName})],
fullName: [({updatedBy.fullName})],
name: [({name})],
description: [({description})],
status: [({status})],
workDir: [({workDir})],
dedicated: [({dedicated})],
capabilities: [# th:if="({#lists.isEmpty(capabilities)})"-[/] [# th:each="cap : {capabilities}" ]
[({cap})][/]
details:
address: [# th:if="({#lists.isEmpty(details.address)})"-[/] [# th:each="addr : {details.address}" ]
[({addr})][/]
totalMemory: [({details.totalMemory})],
freeMemory: [({details.freeMemory})],
cpu: [({details.cpu})],
version:
version: [({details.version.version})],
build: [({details.version.build})],
sha: [({details.version.sha})]
features: [# th:each="feature : {details.features}" ]
type: [({feature.type})]
enabled: [({feature.enabled})]

```

```

status: [({feature.status})]
healthy: [({feature.healthy})]
details: [# th:if="{feature.details.isEmpty()}"-[/][# th:each="detail : {feature.details}" ]
[({detail.key})] - [({detail.value})][/][/]
last_seen: [({last_seen})]

```

- DocType

DocType Template Example

```

ID: [({id})],
updateTimeStamp: [({updateTimeStamp})],
createTimeStamp: [({createTimeStamp})],
updatedBy:
id: [({updatedBy.id})],
firstName: [({updatedBy.firstName})],
lastName: [({updatedBy.lastName})],
fullName: [({updatedBy.fullName})],
uuid: [({uuid})],
name: [({name})],
description: [({description})],
documentType:
id: [({documentType.id})],
updateTimeStamp: [({documentType.updateTimeStamp})],
createTimeStamp: [({documentType.createTimeStamp})],
createdBy:
id: [({documentType.createdBy.id})],
firstName: [({documentType.createdBy.firstName})],
lastName: [({documentType.createdBy.lastName})],
fullName: [({documentType.createdBy.fullName})],
updatedBy:
id: [({documentType.updatedBy.id})],
firstName: [({documentType.updatedBy.firstName})],
lastName: [({documentType.updatedBy.lastName})],
fullName: [({documentType.updatedBy.fullName})],
httpId: [({documentType.httpId})],
name: [({documentType.name})],
description: [({documentType.description})],
settings: [# th:each="setting : {documentType.settings}" ]
[({setting.key})] - [({setting.value})][/]
status: [({status})],
priority: [({priority})],
httpId: [({httpId})],
inputJson: [# th:if="{inputJson.isEmpty()}"-[/][# th:each="param : {inputJson}" ]
[({param.key})] - [({param.value})][/]
outputJson: [# th:if="{outputJson.isEmpty()}"-[/][# th:each="param : {outputJson}" ]
[({param.key})] - [({param.value})][/]

```

(v. 2.2) Control Server Configuration

- [Create a New CS Configuration Parameter](#)
- [Upload a CS Configuration Parameter](#)
- [Update a CS Configuration Parameter](#)

The Control Server Configuration module displays a catalog of system configuration parameters and allows the user to manage them.

You can access the module by clicking **Administration CS Configuration**. To access the CS Configuration module, you need to be granted Administration-READ permission. See [Role Permissions](#) .

The screenshot displays the 'Control Server Configuration' module interface. It features a sidebar menu on the left with 'CS Configuration' highlighted by a red arrow. The main area shows a table of configuration parameters with columns for Key, Value, and Scope. The table contains several rows of configuration parameters, including 'mongodb.timeout', 'mongodb.index', and 'easyrpa'. The footer of the interface shows the copyright information: '© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329'.

EasyRPA Control Server allows to perform the following actions:

- **Create** a new CS Configuration Parameter. Required permission: Administration-CREATE + Administration-READ.
- **Edit** an existing CS Configuration Parameter. Required permission: Administration-CREATE + Administration-READ.
- **Download** existing CS Configuration Parameters in CSV file. Required permission: Administration-READ.
- **Upload** CS Configuration Parameters in CSV file. Required permission: Administration-CREATE + Administration-READ.
- **Delete** an existing CS Configuration Parameter. Required permission: Administration-DELETE + Administration-READ.

Filter by text

Filtering allows you to search the CS Configuration Parameter by all columns.

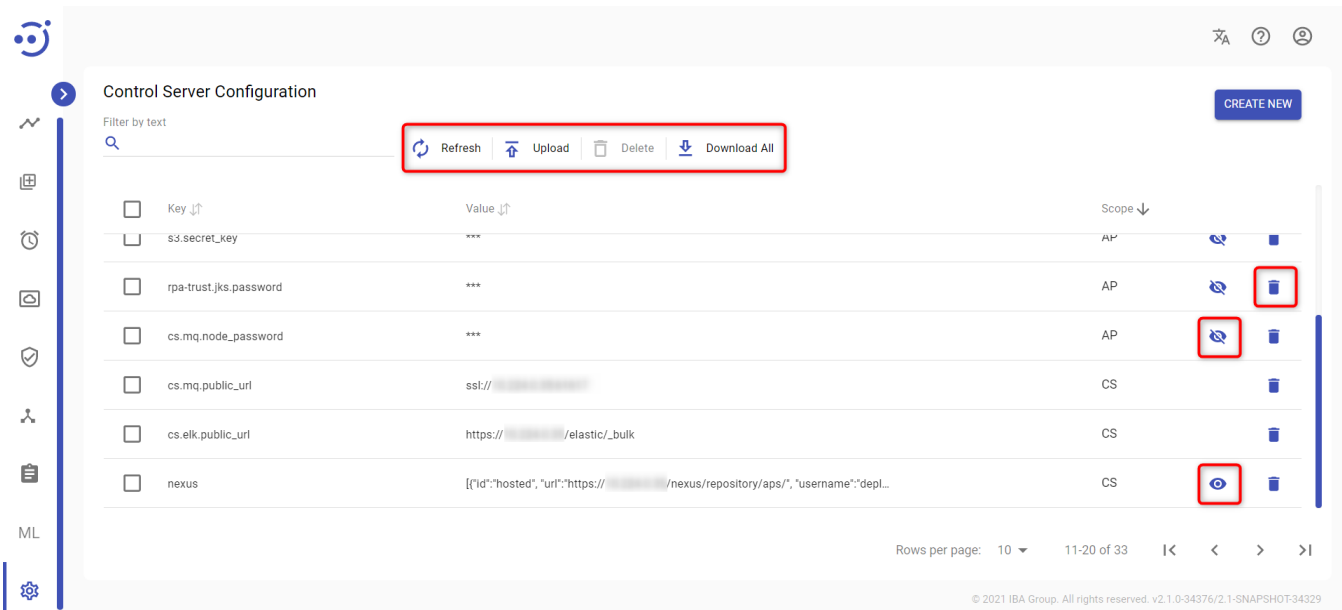
⚠ Filtering does not allow you to search the CS Configuration Parameter with **Secret value** by the Value column.

Sorting

Ascending/descending sorting is allowed for all columns.

Control icons

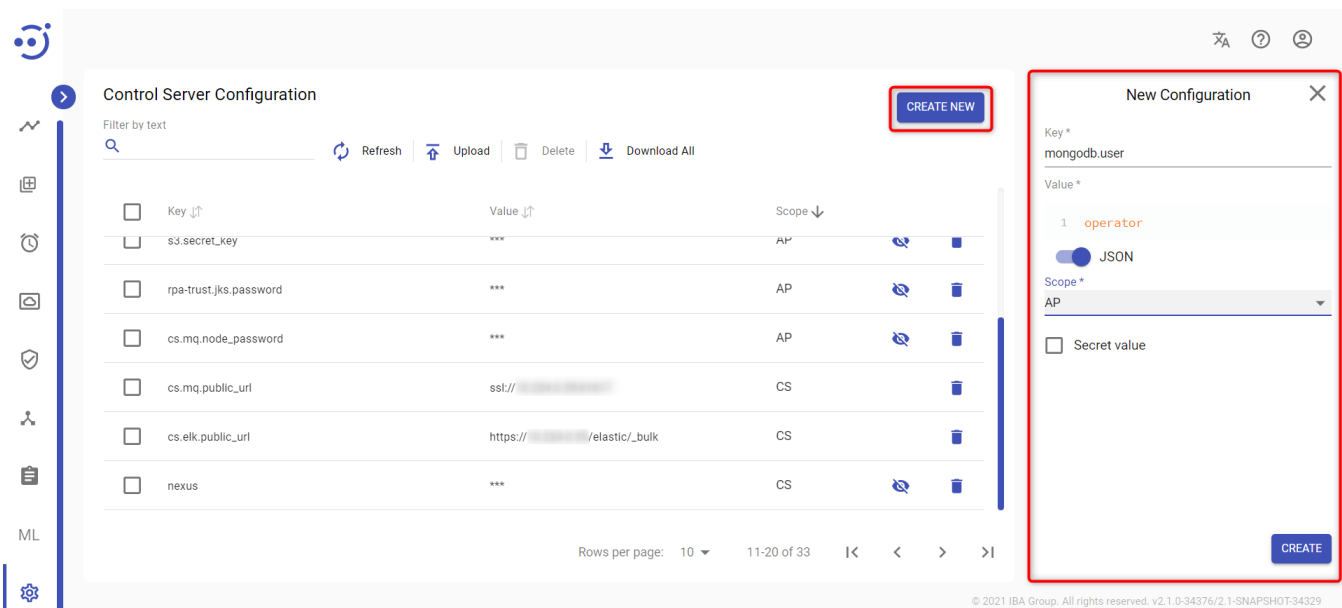
- **Refresh** - to pull the last updates from the server.
- **Upload** - to upload CS Configuration Parameters in CSV file. Required permission: Administration-CREATE + Administration-READ.
- **Delete** - to delete the CS Configuration Parameter (via the recycle bin control icon in the table row or Delete icon above the table). Required Permission: Administration-DELETE + Administration-READ.
- **Download All** - to download existing CS Configuration Parameters in CSV file. Required permission: Administration-READ.
- **Show setting** - to show the Value for the CS Configuration Parameter with Secret value.
- **Hide setting** - to hide the Value for the CS Configuration Parameter with Secret value.



Create a New CS Configuration Parameter

To create a CS Configuration Parameter:

- Click **CREATE NEW**.
- On the **New Configuration** popup panel:
 - Enter a unique **Key** to distinguish the Configuration Parameter.
 - Enter the **Value** of the Configuration Parameter.
 - Choose the **Scope** from the dropdown list (AP - for Automation Process level, CS - for Control Server level).
 - Tick **Secret value**, if the Value should be hidden.
- Click **CREATE**.



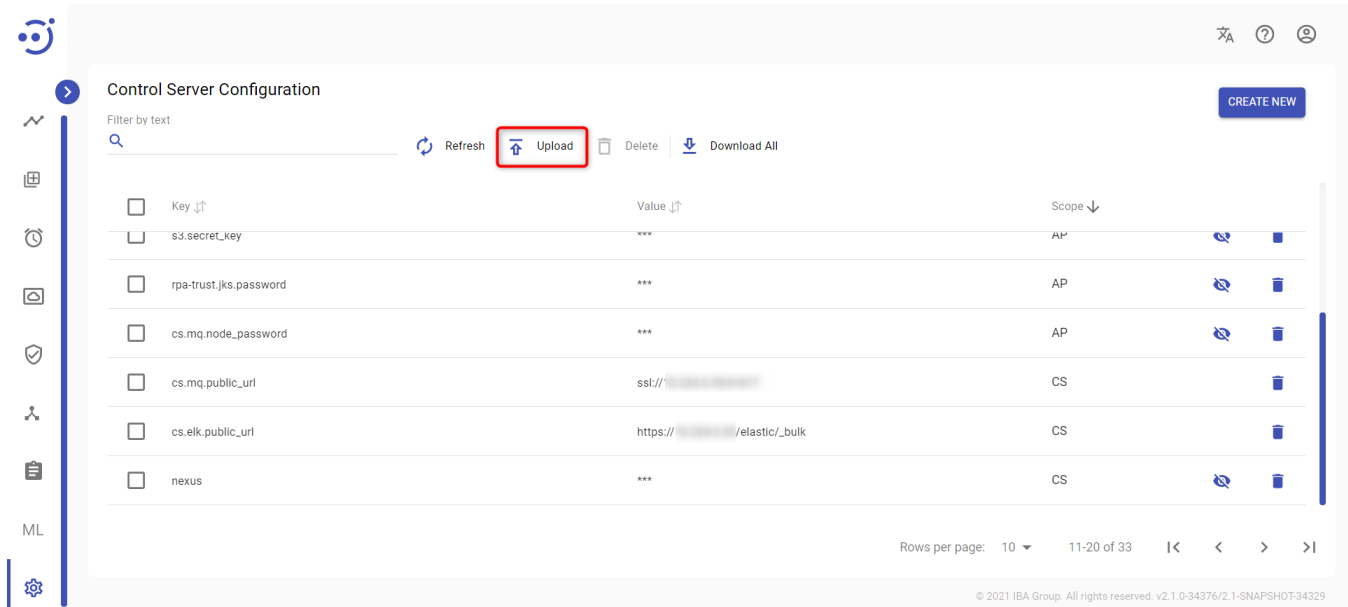
⚠ Parameters with the scope "AP" can also be added to the Automation Process and Node Configuration Parameters modules. If all three modules have the same parameter with different values, priority is given to Node Configuration Parameter, then Automation Process, and the last CS Configuration Parameter.

To create the CS Configuration Parameter, you need to be granted Administration-CREATE permission (with Administration-READ). See [\(v. 2.2\) Role Permissions](#).

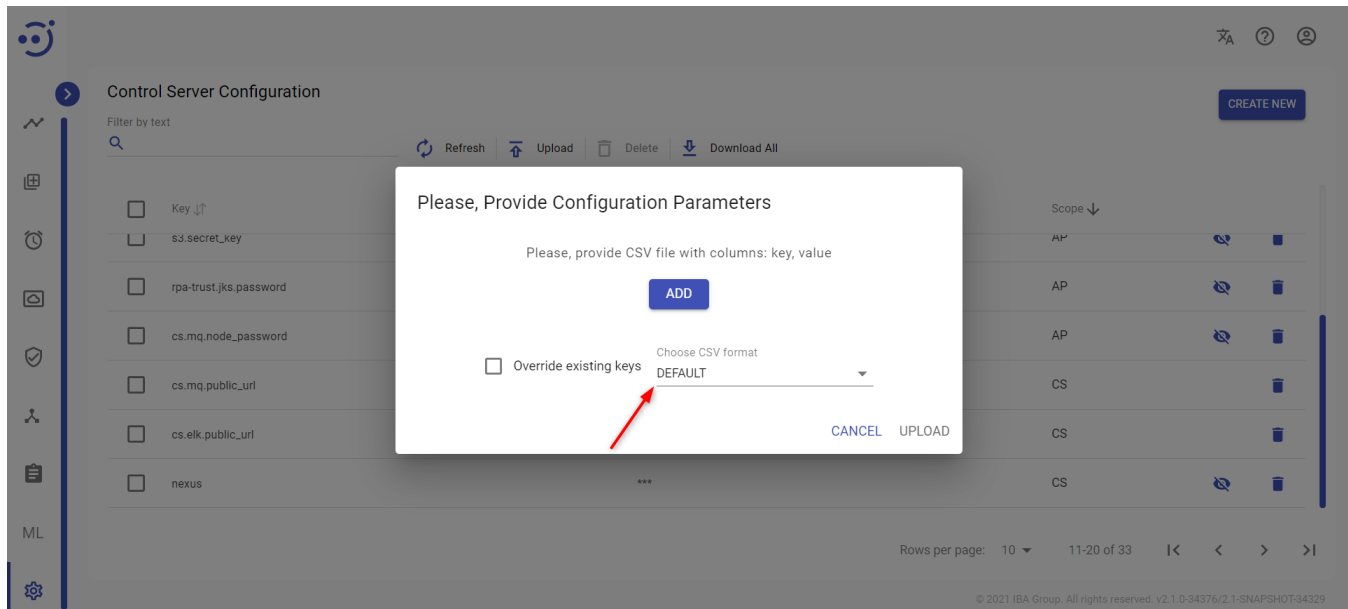
Upload a CS Configuration Parameter

The other way to create a CS Configuration Parameter is to **Upload** file with CS Configuration Parameters in CSV format:

1. Click **Upload**.

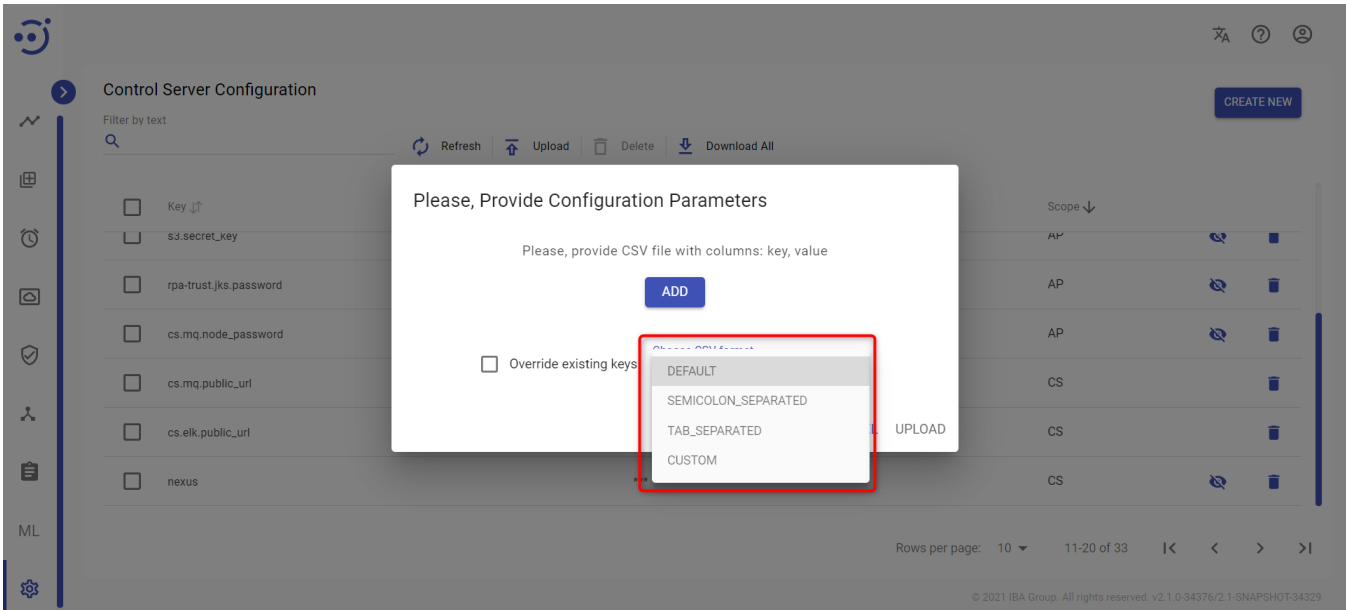


2. Choose CSV format:

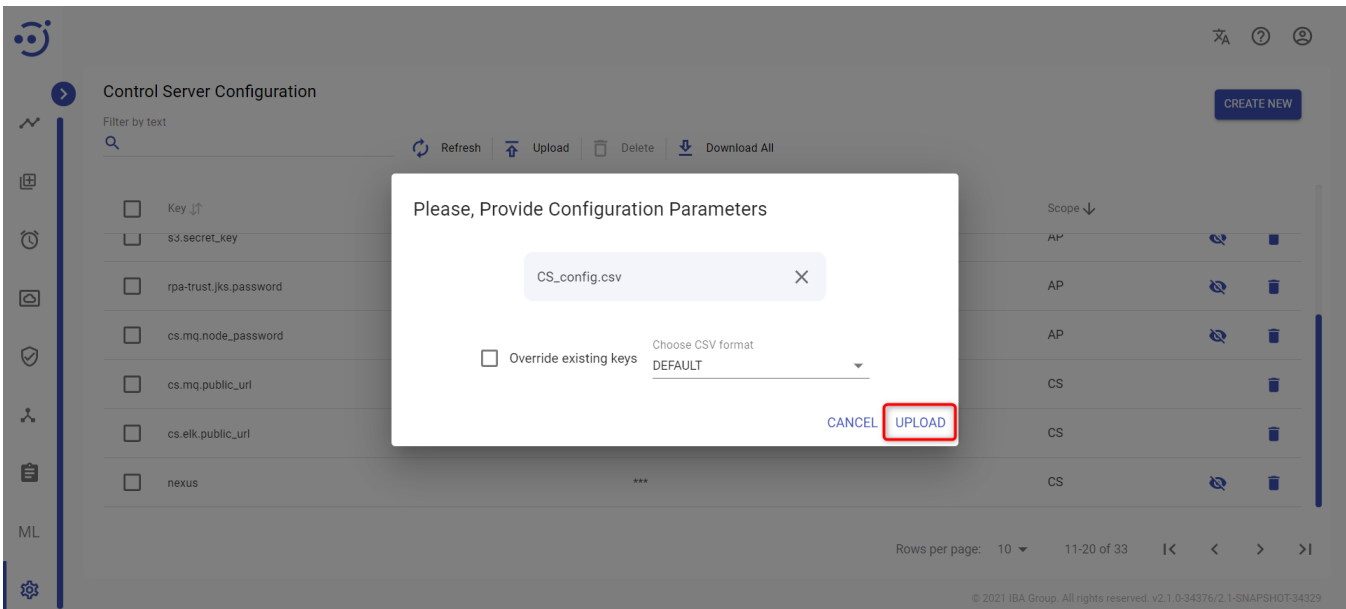


CSV format settings:

- DEFAULT - CSV file as a delimiter comma (,)
- SEMICOLON_SEPARATED - CSV file as a delimiter semicolon (;)
- TAB_SEPARATED - CSV file as a delimiter tab (\t)
- CUSTOM - CSV file as a delimiter comma (,) other options - for advanced user.



3. Click **ADD** to select CSV file and provide CSV file with columns: key, value, scope, secret.
4. Please, use **Override existing keys** checkbox if needed.
5. Click **UPLOAD** to load the file:



To upload a CS Configuration Parameter, you need to be granted Administration-CREATE permission (with Administration-READ). See ([v. 2.2\) Role Permissions](#)).

Update a CS Configuration Parameter

To update an existing CS Configuration Parameter, you need to:

- Click on the corresponding CS Configuration Parameter.
- Change one of the field values on the **Edit CS Configuration** popup panel
- Click **UPDATE**.

The screenshot displays the 'Control Server Configuration' page. On the left is a navigation sidebar with icons for home, dashboard, history, security, users, and ML. The main area shows a table of configuration parameters with columns for Key, Value, and Scope. The 's3.access_key' row is selected. A 'CREATE NEW' button is in the top right. Below the table are pagination controls showing '11-20 of 33' rows.

Key	Value	Scope
remoteExecutionService.taskTimeout	10	AP
mongodb.user	node	AP
mongodb.password	***	AP
s3.access_key	***	AP
s3.secret_key	***	AP
rna-trust.iks.password	***	AP

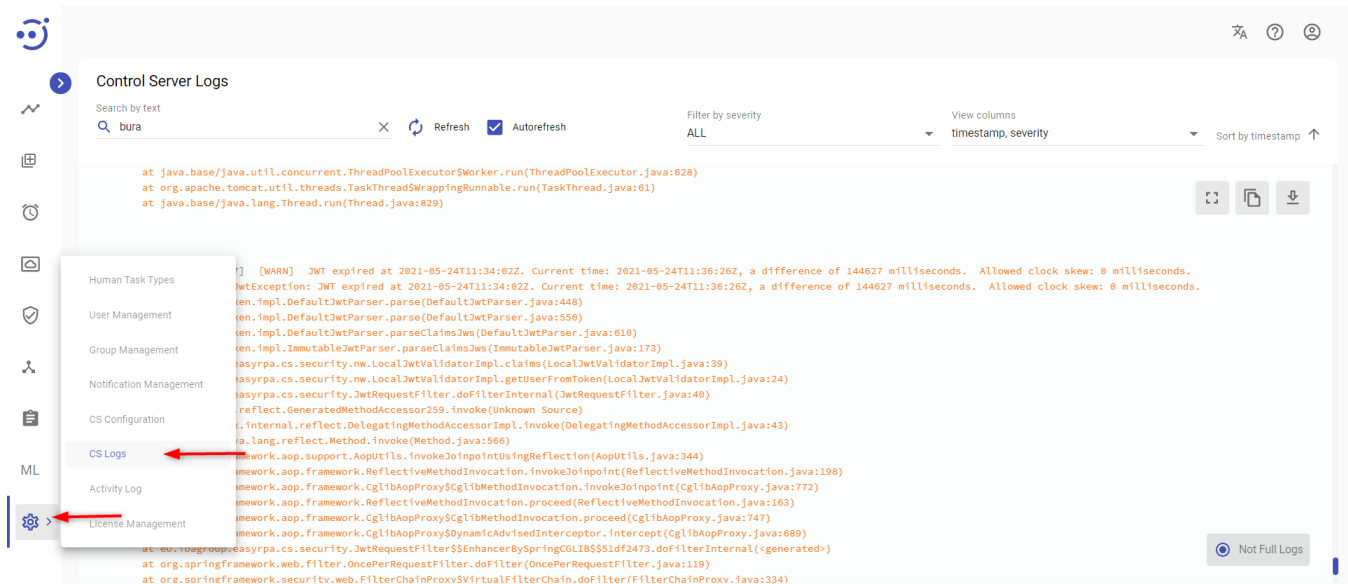
The 'Edit CS Configuration' dialog box for 's3.access_key' is open on the right. It shows the key name, a value field containing '1', a 'JSON' toggle, a scope dropdown set to 'AP', and a checked 'Secret value' checkbox. An 'UPDATE' button is at the bottom right of the dialog.

© 2021 IBA Group. All rights reserved. v2.1.0-34376/2.1-SNAPSHOT-34329

To update the CS configuration parameter, you need to be granted Administration-CREATE permission (with Administration-READ). See [Role Permissions](#) .

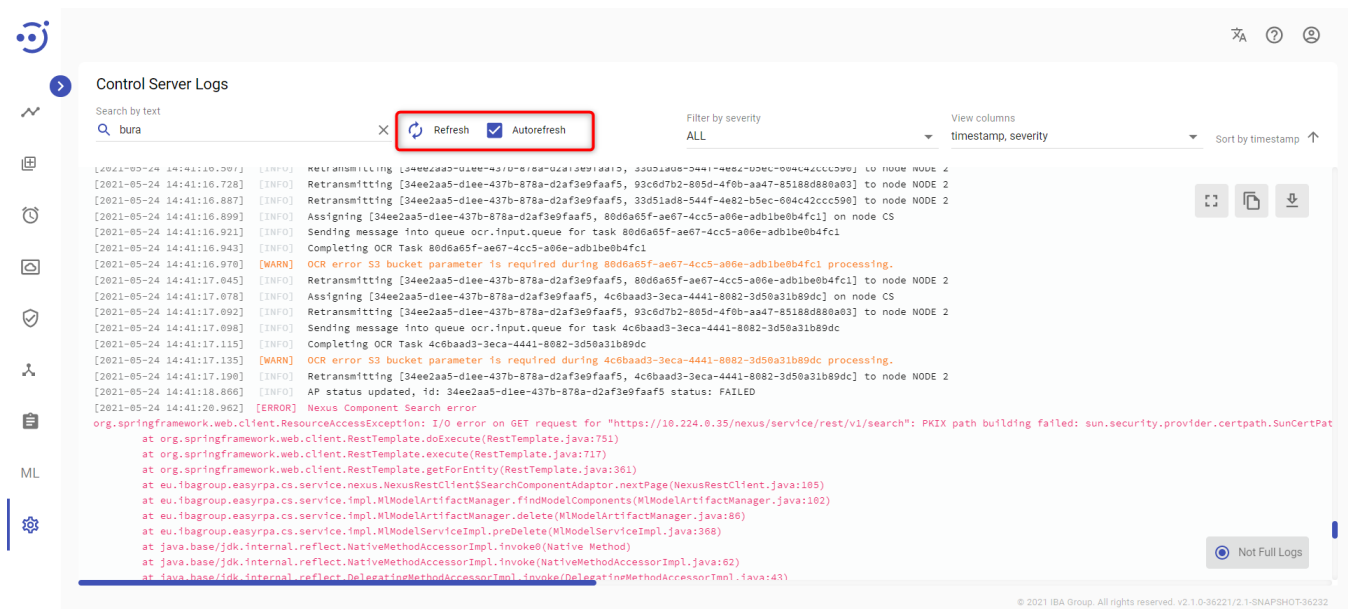
(v. 2.2) Control Server Logs

Control Server Log module displays the logs of the processes running at Control Server level, such as processes' assigning on nodes, auxiliary db operations, etc. You can access the module by clicking **Administration CS Logs**. The module is available for users from Administrators group only. To access the Control Server Log, you need to be granted Administration-READ permission. See [\(v. 2.2\) Role Permissions](#).



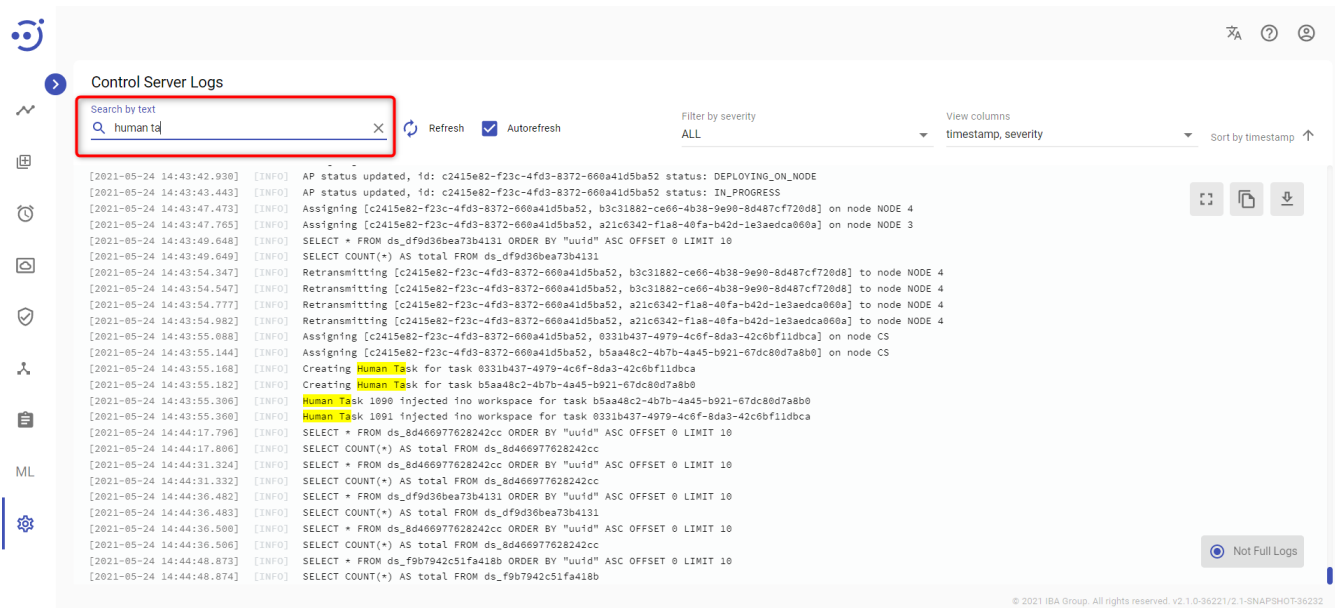
Control icons

- **Refresh** - to pull the latest logs from the server.
- **Autofresh checkbox** - to turn on/off an automatic refresh of logs.



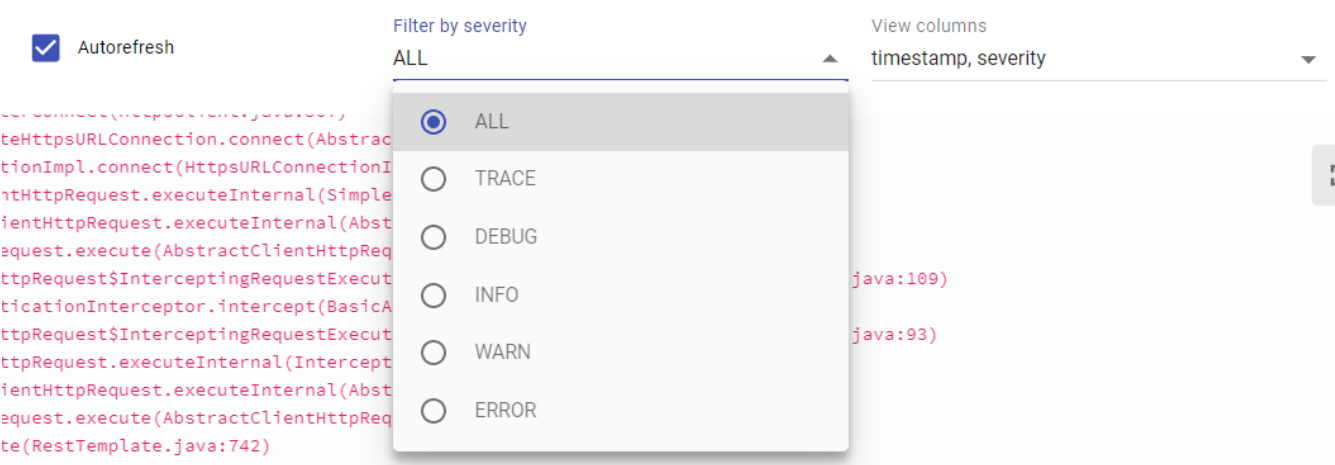
Search by text

You can search for a particular log by its text. The logs found are highlighted in yellow.



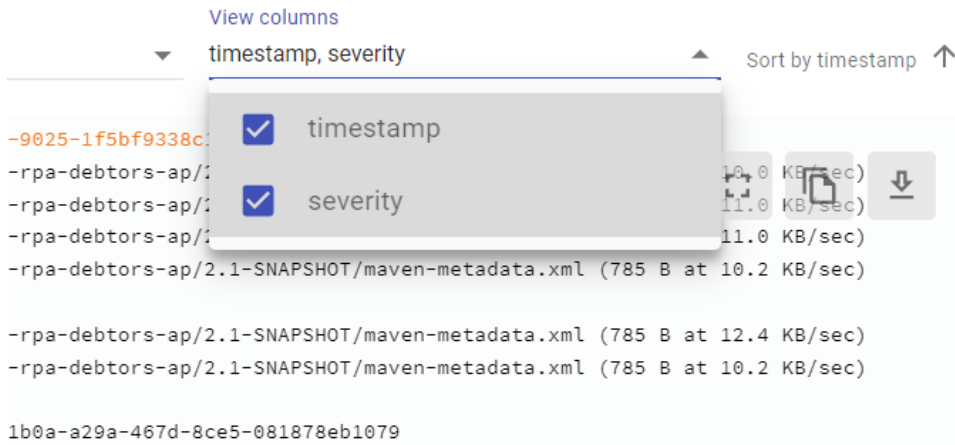
Filter by severity

Filtering allows you to choose the level of severity of the displayed logs from the dropdown menu. The available options are as follows:



View columns

You can add or remove the columns **timestamp/severity/node** name from the event log view.



Sort by timestamp

Ascending/descending logs sorting by the timestamp is allowed.

In the upper-right corner of the logs window there are buttons for opening logs in the full browser window, copying logs to the clipboard and downloading a .txt file with logs:



"Not Full Logs" indicator appears at the bottom right corner when the log becomes too long for one page:

Control Server Logs

Search by text

Refresh Autorefresh Filter by severity ALL View columns timestamp, severity Sort by timestamp ↑

```
[2021-05-24 15:45:20.831] [INFO] Downloaded: https://10.224.0.35/nexus/repository/easyrpa-group/eu/1bagroup/samples/ap/easy-rpa-debtors-ap/2.1-SNAPSHOT/maven-metadata.xml (785 B at 11.0 KB/sec)
[2021-05-24 15:45:21.037] [INFO] Downloaded: https://10.224.0.35/nexus/repository/easyrpa-group/eu/1bagroup/samples/ap/easy-rpa-debtors-ap/2.1-SNAPSHOT/maven-metadata.xml (785 B at 12.4 KB/sec)
[2021-05-24 15:45:23.067] [INFO] Downloaded: https://10.224.0.35/nexus/repository/easyrpa-group/eu/1bagroup/samples/ap/easy-rpa-debtors-ap/2.1-SNAPSHOT/maven-metadata.xml (785 B at 10.2 KB/sec)
[2021-05-24 15:45:23.288] [INFO] AP status updated, id: 5a8e107e-5f39-4e05-8b82-66ce23c36106 status: QUEUED
[2021-05-24 15:45:23.359] [INFO] AP Debtor Analysis 5a8e107e-5f39-4e05-8b82-66ce23c36106 submitted into queue. Session 82411b6a-a29a-4670-8ce5-081878eb1079
[2021-05-24 15:45:23.388] [INFO] Assigning [5a8e107e-5f39-4e05-8b82-66ce23c36106] on node NODE 1
[2021-05-24 15:45:23.524] [INFO] AP status updated, id: 5a8e107e-5f39-4e05-8b82-66ce23c36106 status: DEPLOYING_ON_NODE
[2021-05-24 15:45:24.078] [INFO] AP status updated, id: 5a8e107e-5f39-4e05-8b82-66ce23c36106 status: IN_PROGRESS
[2021-05-24 15:45:25.729] [INFO] Downloaded: https://10.224.0.35/nexus/repository/easyrpa-group/eu/1bagroup/samples/ap/easy-rpa-debtors-ap/2.1-SNAPSHOT/maven-metadata.xml (785 B at 11.8 KB/sec)
[2021-05-24 15:45:25.947] [INFO] Downloaded: https://10.224.0.35/nexus/repository/easyrpa-group/eu/1bagroup/samples/ap/easy-rpa-debtors-ap/2.1-SNAPSHOT/maven-metadata.xml (785 B at 10.2 KB/sec)
[2021-05-24 15:45:28.193] [INFO] Assigning [5a8e107e-5f39-4e05-8b82-66ce23c36106, 843efe96-8719-4bca-b7fd-6466df93776f] on node NODE 1
[2021-05-24 15:46:11.632] [INFO] easy-rpa-engine-parent-2.0-SNAPSHOT.pom
[2021-05-24 15:46:11.632] [INFO] secret.3.json
[2021-05-24 15:46:11.632] [INFO] easy-rpa-debtors-ap-2.0-SNAPSHOT.pom
[2021-05-24 15:46:11.632] [INFO] ap.json
[2021-05-24 15:46:11.632] [INFO] secret.2.json
[2021-05-24 15:46:11.632] [INFO] secret.1.json
[2021-05-24 15:46:11.632] [INFO] easy-rpa-debtors-ap-2.0-SNAPSHOT.jar
[2021-05-24 15:46:11.632] [INFO] easy-rpa-debtors-2.0-SNAPSHOT.pom
[2021-05-24 15:46:11.646] [ERROR] There is an error during package import
eu.fbagroup.easyrpa.engine.exception.EasyRpaException: 54018-9550-2408 - Wrong structure of the automation process package
Wrong package item json
class eu.fbagroup.easyrpa.cs.controller.dto.AutomatonProcessDto
at eu.fbagroup.easyrpa.cs.service.packaging.PackageItem.Load(PackageItem.java:75)
```

Not Full Logs

© 2021 IBA Group. All rights reserved. v2.1.0-36221/2.1-SNAPSHOT-36232

To download full logs use **Download** button:

View columns timestamp, severity Sort by timestamp ↑

101/maven-metadata.xml (337 B at 4.6 KB/sec)

10T/maven-metadata.xml (337 B at 4.8 KB/sec)

Download Full Logs

ir\l" TEXT,"s3_path" TEXT,"ocr_json" TEXT,"input_json" TEXT,"output_j

To copy the displayed logs only use **Copy** button:

View columns timestamp, severity Sort by timestamp ↑

maven-metadata.xml (337 B at 4.8 KB/sec)

Copy

TEXT,"s3_path" TEXT,"ocr_json" TEXT,"input_json" TEXT,"output_j

TEXT,"s3_path" TEXT,"ocr_json" TEXT,"input_json" TEXT,"output_j

To view more log records simultaneously enter the full screen mode via pressing the corresponding button:

View columns

timestamp, severity

Sort by timestamp ↑

Enter Full Screen

94-94aefa9070a7.pdf

16-42e0-9a27-5a73590f5004.pdf

27-5a73590f5004.pdf

fd-4d84-af57-eec6d7131294.pdf

57-eec6d7131294.pdf

25-4c87-a3c5-ec62df0c0774.pdf



(v. 2.2) Activity Log

- [View Activity Log History](#)
- [View Activity Log Record Changes](#)

The Activity Log module provides audit functionality to track user and system actions (login sessions, editing Automation Processes /Data Stores, creating AP runs, etc.).

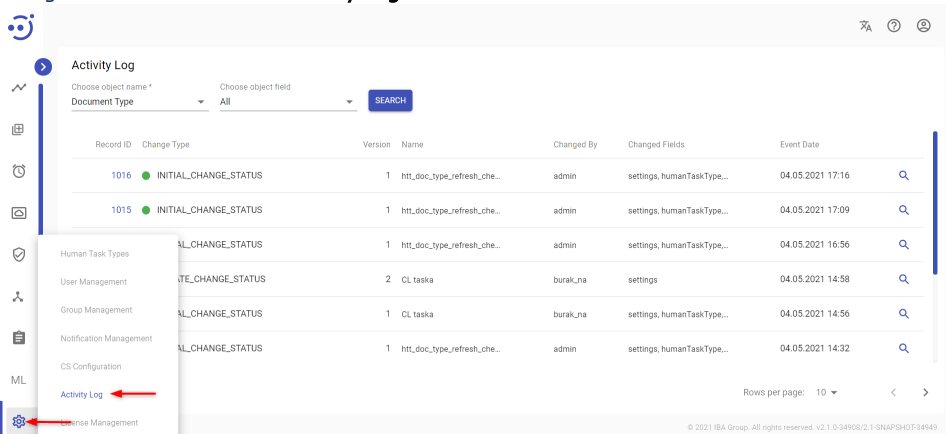
EasyRPA Control Server allows to perform the following actions:

- View the activity log history. To access the Activity log module, you need to be granted Administration-READ permission. See [Role Permissions](#).
- View the particular activity record changes.

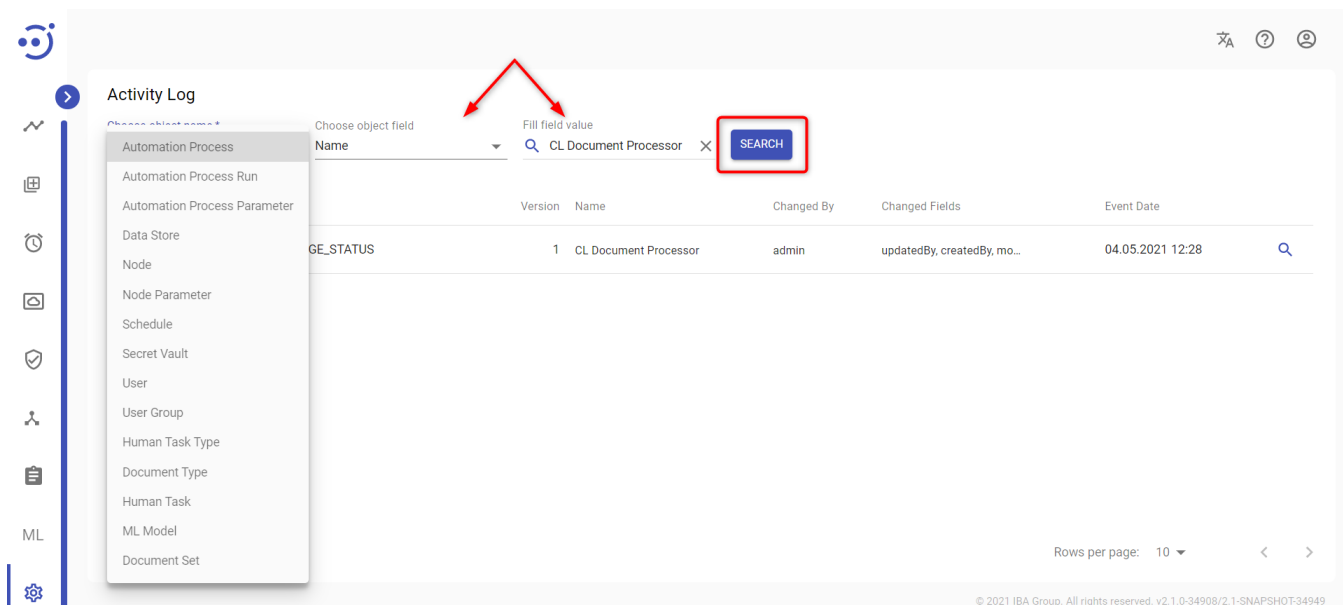
View Activity Log History

To view the Activity Log history, you need to:

- Navigate to **Administration Activity Log**.



- **Chose object name** from the dropdown list.
 - **Chose object field** from the dropdown list.
 - If necessary, **fill field value** (the records can be found only if complete case-sensitive field values are entered).
 - Click **Search** button.
- ⚠ Please note, that the searchable value should be entered completely into the Search field. A full match is the only way to search.



To apply filter by Record ID, you need to click on loupe

Activity Log

Choose object name * Automation Process Choose object field All SEARCH

Record ID	Change Type	Version	Name	Changed By	Changed Fields	Event Date
1047	UPDATE_CHANGE_STATUS	5	Automation Test DeleteSo...	admin	params	04.05.2021 18:04
1047	UPDATE_CHANGE_STATUS	4	Automation Test DeleteSo...	admin	params	04.05.2021 18:03
1047	UPDATE_CHANGE_STATUS	3	Automation Test DeleteSo...	admin	params	04.05.2021 18:02

Columns Description

- **Record ID** - the ID of the entity on which the action was performed.
- **Change Type** - the type of the activity (Update, Create, Delete)
- **Version** - the entity change version.
- **Name** - the Name of the object.
- **Changed By** - an author of the performed action.
- **Changed Fields** - the field(s) that have been changed.
- **Event Date** - the date and time of the performed action.

View Activity Log Record Changes

To view the particular activity record changes, you need to:

- Navigate to **Administration Activity Log**.
- Click on the corresponding Activity Log **Record ID**.

Activity Log / 1047.0.1289.AutomationProcess

View Activity Changes ← Back to list VIEW CURRENT RECORD STATE

Filter by text Refresh

Field Name	Change Type	Value Type	Old Value	New Value
updatedBy	CREATED_CHANGE_STATUS	Reference		...User/1
createdBy	CREATED_CHANGE_STATUS	Reference		...User/1
moduleClass	CREATED_CHANGE_STATUS	Value		eu.ibagroup.easyrpa.ap.productsreader.ProductsReaderAp
name	CREATED_CHANGE_STATUS	Value		Invoice Plane Automation 2021.05.04 18:02:17
repositoryType	CREATED_CHANGE_STATUS	Value		NEXUS
repositoryId	CREATED_CHANGE_STATUS	Value		eu.ibagroup.samples.ap.easy-rpa-invoiceplane-ap:jar:2.1-SNAPSHOT

Rows per page: 10 1-10 of 12

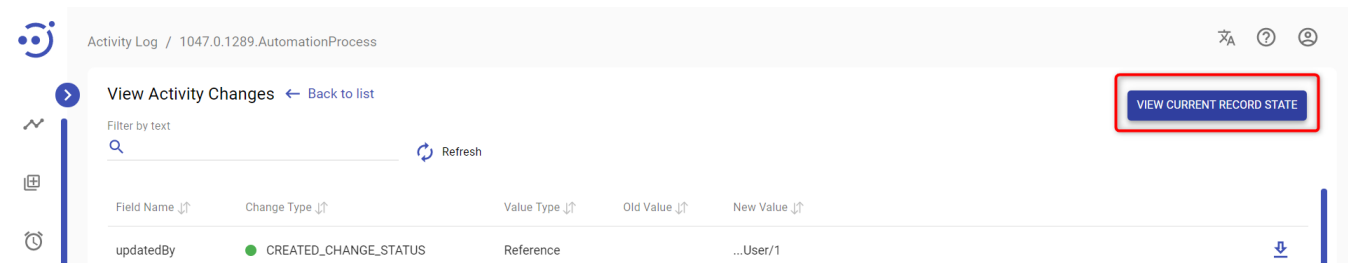
© 2021 IBA Group. All rights reserved. v2.1.0-34908/Z.1-SNAPSHOT-34949

Columns Description

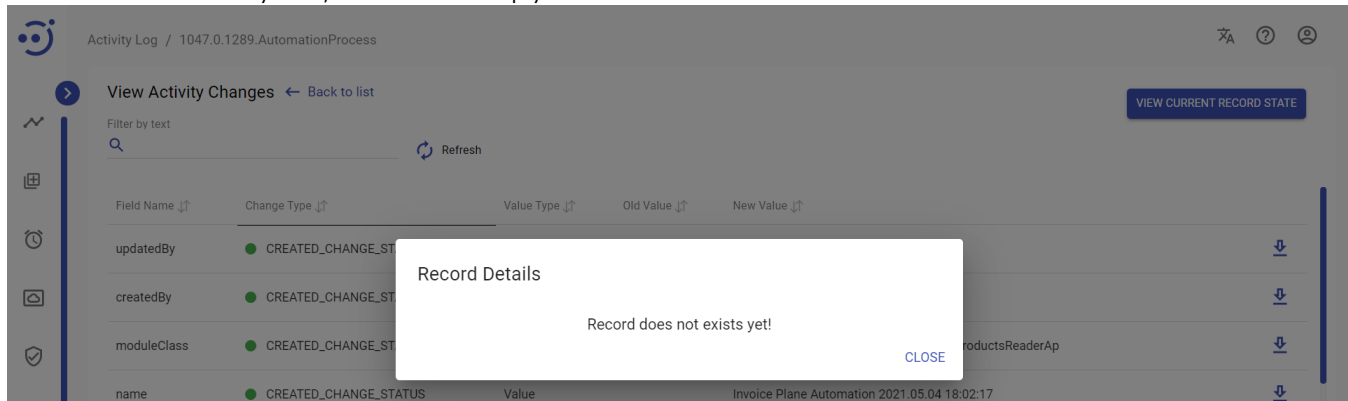
- **Field Name** - the name of the field modified.
- **Change Type** - the type of action performed. (Created, Deleted, Updated)
- **Value Type** - the type of value on which the action was performed. (Value, List, Reference)
- **Old Value** - the value before the action is performed (empty for "Created" Change Type)
- **New Value** - the value after the action is performed (empty for "Deleted" Change Type)
- **Download Activity** - to download existing record.

View Current Record State

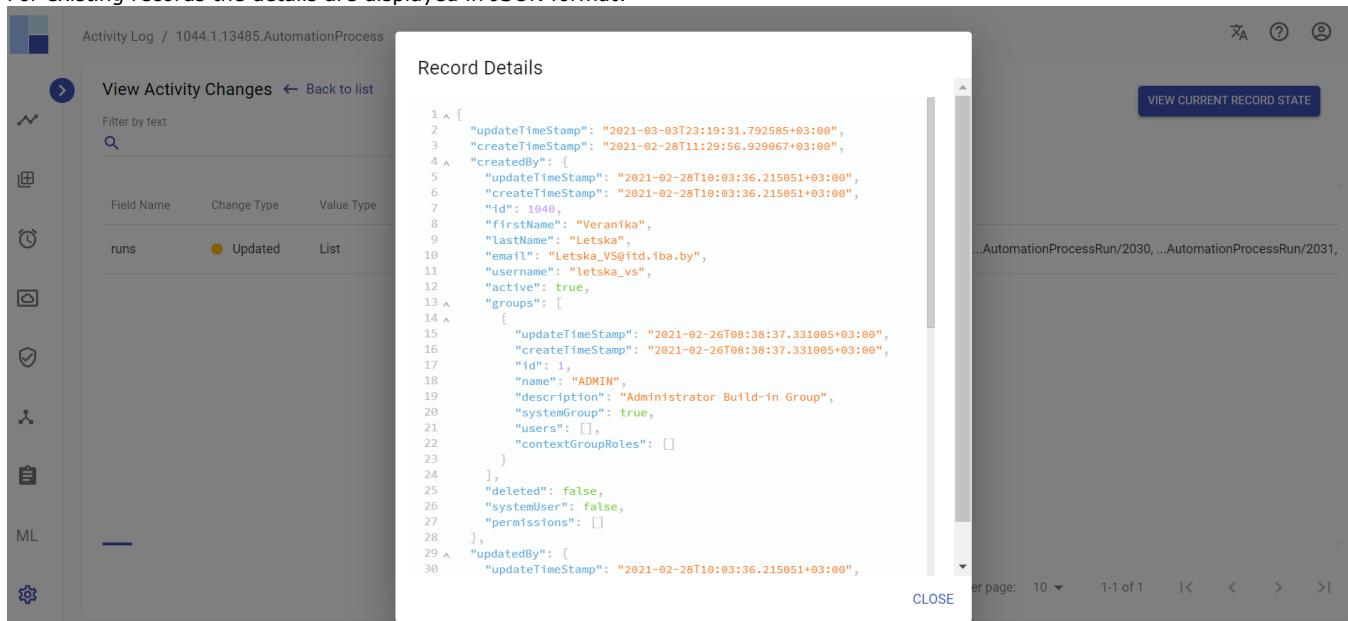
Button **View current record state** allows to view the actual state and others details of the Record:



If record doesn't exist anymore, its details are empty:



For existing records the details are displayed in JSON format:

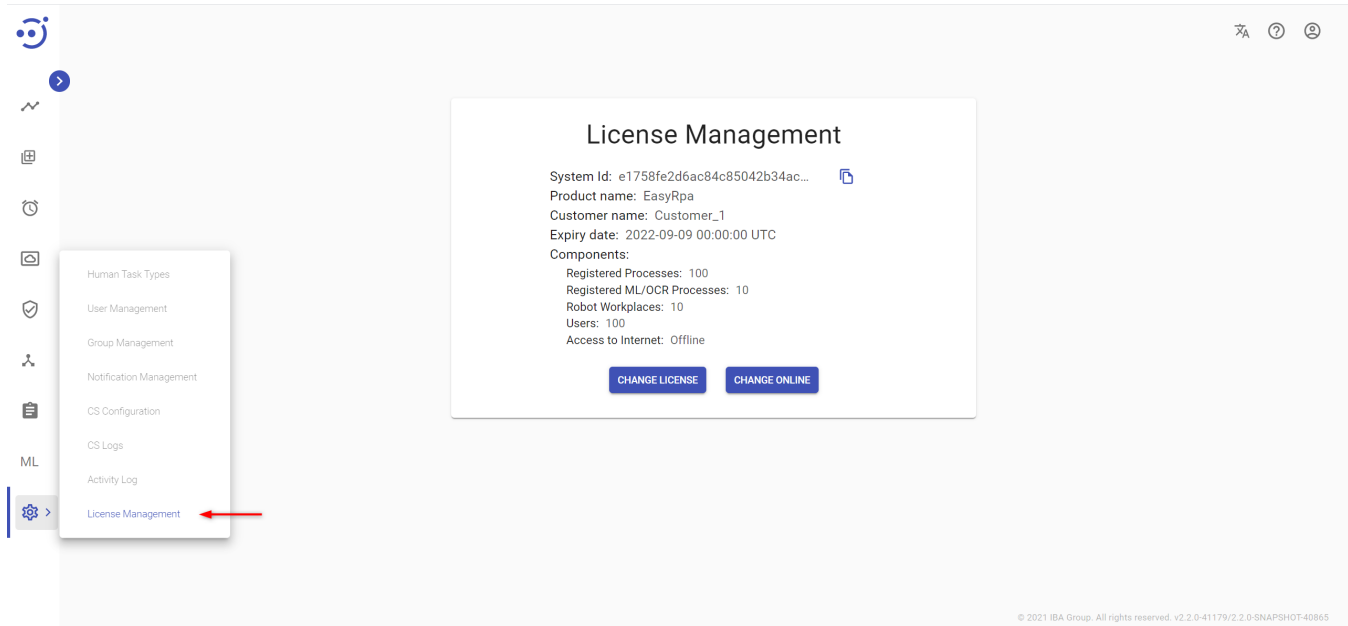


(v. 2.2) License Management

- [License General Information](#)
- [Upload the License](#)
 - [Online License](#)
 - [Offline License](#)
- [Replace the License](#)
 - [Offline License](#)
 - [Online License](#)

The License Management module displays the current license information and allows you to upload and replace the current license.

You can access the module by clicking **Administration License Management**.




To access the License Management module, you need to be granted Administration-ALL-READ permission. See [\(v. 2.2\) Role Permissions](#).

License General Information

The current license information displays the following information specified in the license:

- **System Id** - a unique system identifier of the particular instance.
- **Product name** - the name of the licensed product
- **Customer name** - the name of the customer to whom the license is granted.
- **Expiry date** - the expiration date of the license.
- **Components:**
 - **Registered Processes** - the maximum number of RPA processes that can be registered in the Control Server (including the number of ML/OCR Processes).
 - **Registered ML/OCR Processes** - the maximum number of ML or OCR processes that can be registered in the Control Server. A process involving both ML and OCR counts as one process.
 - **Robot Workplaces** - the maximum number of Nodes available for automation processes execution.
 - **Users** - the maximum number of users in enabled status that can work simultaneously in the Control Server.
 - **Access to Internet** - a type of license access (Online/Offline).

License Management

System Id: e1758fe2d6ac84c85042b34ac... 

Product name: EasyRpa

Customer name: Customer_1

Expiry date: 2022-09-09 00:00:00 UTC

Components:

Registered Processes: 100

Registered ML/OCR Processes: 10

Robot Workplaces: 10


Users: 100

Access to Internet: Offline

CHANGE LICENSE

CHANGE ONLINE

Control icons

- Copy System Id  - to copy a unique system identifier of the particular instance.

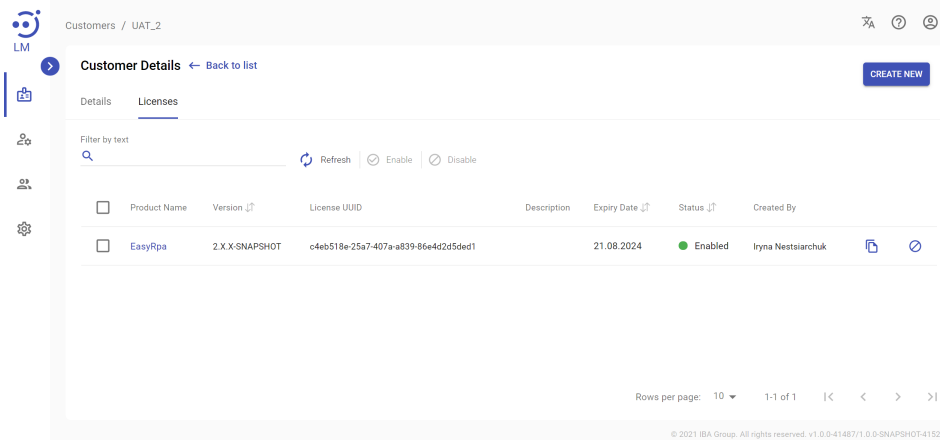
Upload the License

There are two possible ways to upload the license, depending on the required type of License Access: Online or Offline.

Online License

To upload the Online Licence, you know the need to:

1. **Create a new Online License** in the License Manager. See [Create a new License](#).



The screenshot shows the License Manager interface. The breadcrumb is 'Customers / UAT_2'. The page title is 'Customer Details' with a 'Back to list' link. There is a 'CREATE NEW' button. The 'Licenses' tab is selected. Below the tab is a search bar and 'Refresh', 'Enable', and 'Disable' buttons. A table lists licenses with columns: Product Name, Version, License UUID, Description, Expiry Date, Status, and Created By. One license is listed: EasyRpa, 2.X.X-SNAPSHOT, c4eb518e25a7-407a-a839-86e4d2d5ded1, 21.08.2024, Enabled, Iryna Nestsiarchuk. At the bottom, there is a 'Rows per page: 10' dropdown and pagination controls. A footer note reads: '© 2021 IBA Group. All rights reserved. v1.0.0-41487/1.0.0-SNAPSHOT-41521'.

2. **Add License Components** in the License Manager. See [Create a New Component](#).

Customers / UAT_2 / EasyRpa (2.X.X-SNAPSHOT)

LM

License Details ← Back to list CREATE NEW

Components Instances

Filter by text Refresh Delete

Key ↕	Value	
<input type="checkbox"/> Registered Processes	200	
<input type="checkbox"/> Robot Workplaces	100	
<input type="checkbox"/> Users	123	
<input type="checkbox"/> Access to Internet	Online	

Rows per page: 10 1-4 of 4 |< < > >|

© 2021 IBA Group. All rights reserved. v1.0.0-41487/1.0.0-SNAPSHOT-41521

⚠ The Access to Internet component should be chosen as **Online**.

3. Copy the appropriate **License UUID** from the License Manager Customer Details.

Customers / UAT_2

LM

Customer Details ← Back to list CREATE NEW

Details Licenses

Filter by text Refresh Enable Disable

Product Name	Version ↕	License UUID	Description	Expiry Date ↕	Status ↕	Created By	
<input type="checkbox"/> EasyRpa	2.X.X-SNAPSHOT	c4eb519e-25a7-407a-a839-86e4d2d5ded1		21.08.2024	Enabled	Iryna Nestsiarchuk	<input type="text"/> <input type="checkbox"/> Copy License UUID

Rows per page: 10 1-1 of 1 |< < > >|

Copied to clipboard

© 2021 IBA Group. All rights reserved. v1.0.0-41487/1.0.0-SNAPSHOT-41521

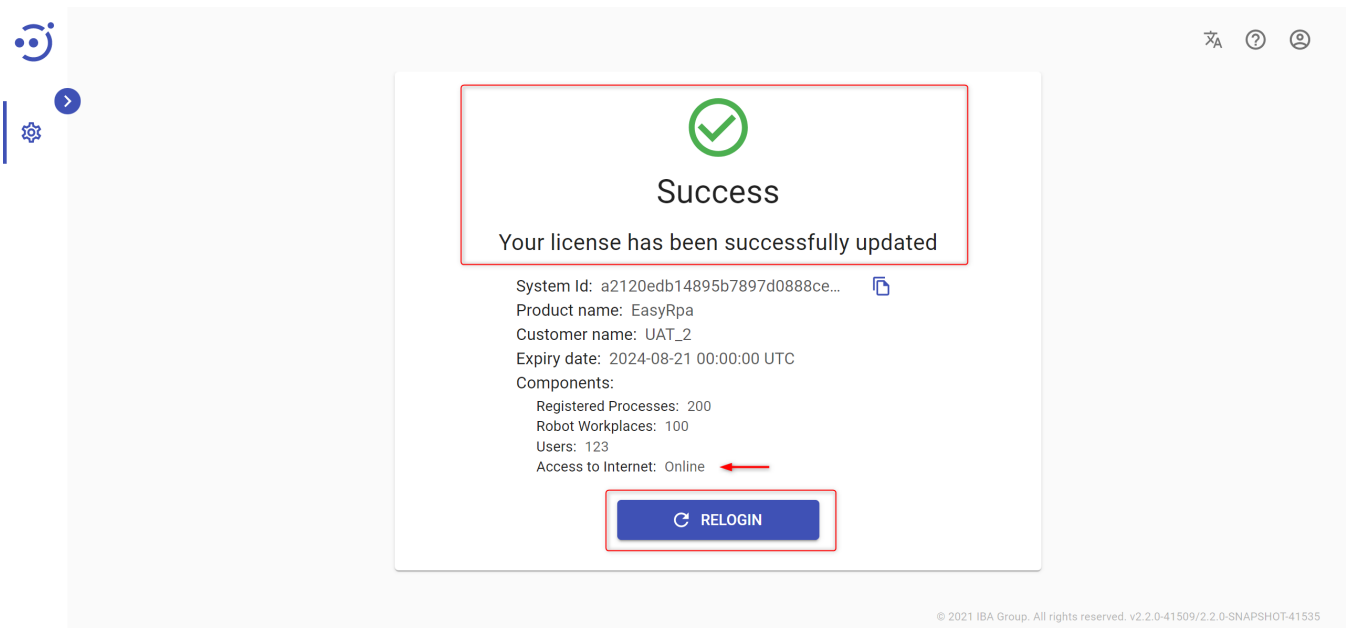
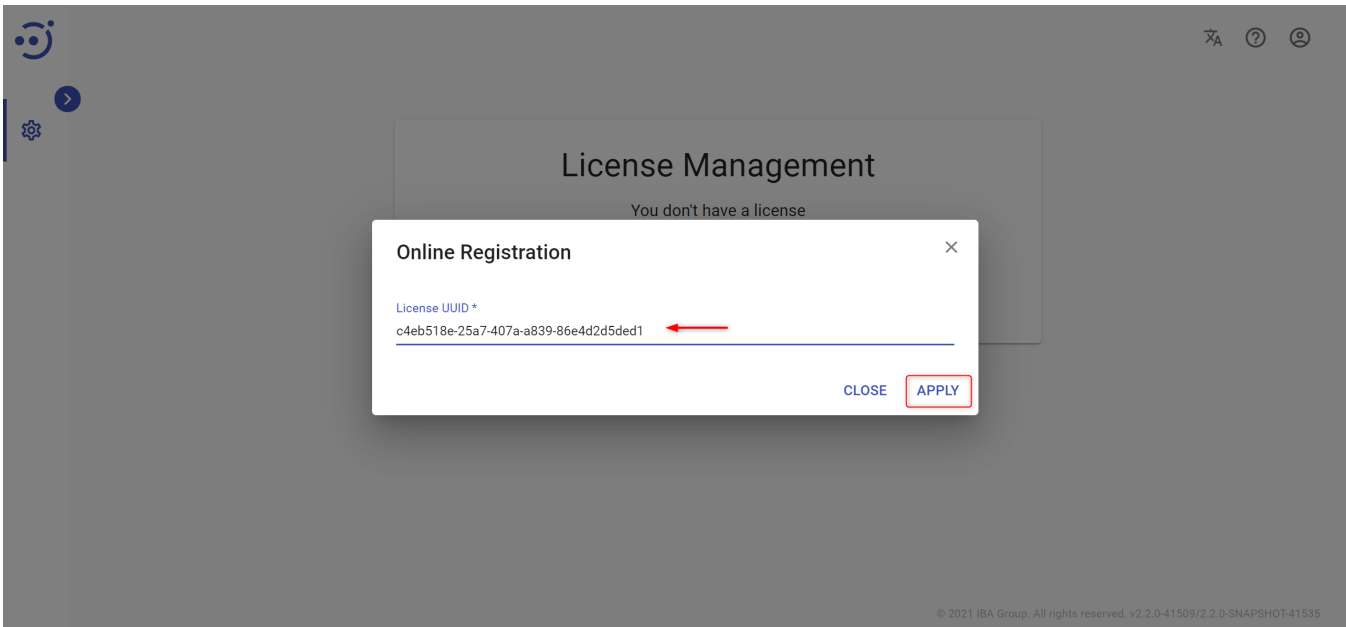
License Management

You don't have a license

System Id: a2120edb14895b7897d0888ce8eb6672809287...

UPLOAD LICENSE ONLINE REGISTRATION

© 2021 IBA Group. All rights reserved. v2.2.0-41509/2.2.0-SNAPSHOT-41535




Offline License

Copy System Id:



License Management

You don't have a license

System Id: a2120edb14895b7897d0888ce8eb6672809287... 

[UPLOAD LICENSE](#) [ONLINE REGISTRATION](#)

© 2021 IBA Group. All rights reserved. v2.2.0-41509/2.2.0-SNAPSHOT-41535

Click Upload License:

Customers / UAT_2 / EasyRpa (2.X.X-SNAPSHOT)

LM

License Details [← Back to list](#)

Components Instances

Filter by text

[Refresh](#) [Delete](#)

<input type="checkbox"/>	System Id	Status \updownarrow	Last Seen \updownarrow	Last Status Changed \updownarrow	Created By
Empty Collection Press Create New button to start your work					

[CREATE NEW](#)

Rows per page: 10 \downarrow 0-0 of 0 |< < > >|

© 2021 IBA Group. All rights reserved. v1.0.0-41487/1.0.0-SNAPSHOT-41521

2.

1. Create a new Instance and Copy License UUID in the License Manager. See [Create a New Instance](#).

Customers / UAT_2 / EasyRpa (2.X.X-SNAPSHOT)

LM

License Details ← Back to list CREATE NEW

Components Instances

Filter by text

System Id

a2120edb14895b7897d0888ce8eb667280928730e0b07b06c69467557971f752

Create Instance [X]

System Id *

a2120edb14895b7897d0888ce8eb667280928730e0b07b06c69467557971f752

CLOSE CREATE

Rows per page: 10 1-1 of 1

© 2021 IBA Group. All rights reserved. v1.0.0-41487/1.0.0-SNAPSHOT-41521

Customers / UAT_2 / EasyRpa (2.X.X-SNAPSHOT)

LM

License Details ← Back to list CREATE NEW

Components Instances

Filter by text

Refresh Delete

<input type="checkbox"/> System Id	Status ↑	Last Seen ↓↑	Last Status Changed ↓↑	Created By
<input type="checkbox"/> a2120edb14895b7897d0888ce8eb6672809...	Registered	01.01.1970 03:00	20.09.2021 16:31	System Admin

Rows per page: 10 1-1 of 1

© 2021 IBA Group. All rights reserved. v1.0.0-41487/1.0.0-SNAPSHOT-41521

✓ New license instance was successfully created!

license_a2120edb14...lic ^ Show all X



License Management

You don't have a license

System Id: a2120edb14895b7897d0888ce8eb6672809287...

UPLOAD LICENSE

ONLINE REGISTRATION



License Management

You don't have a license

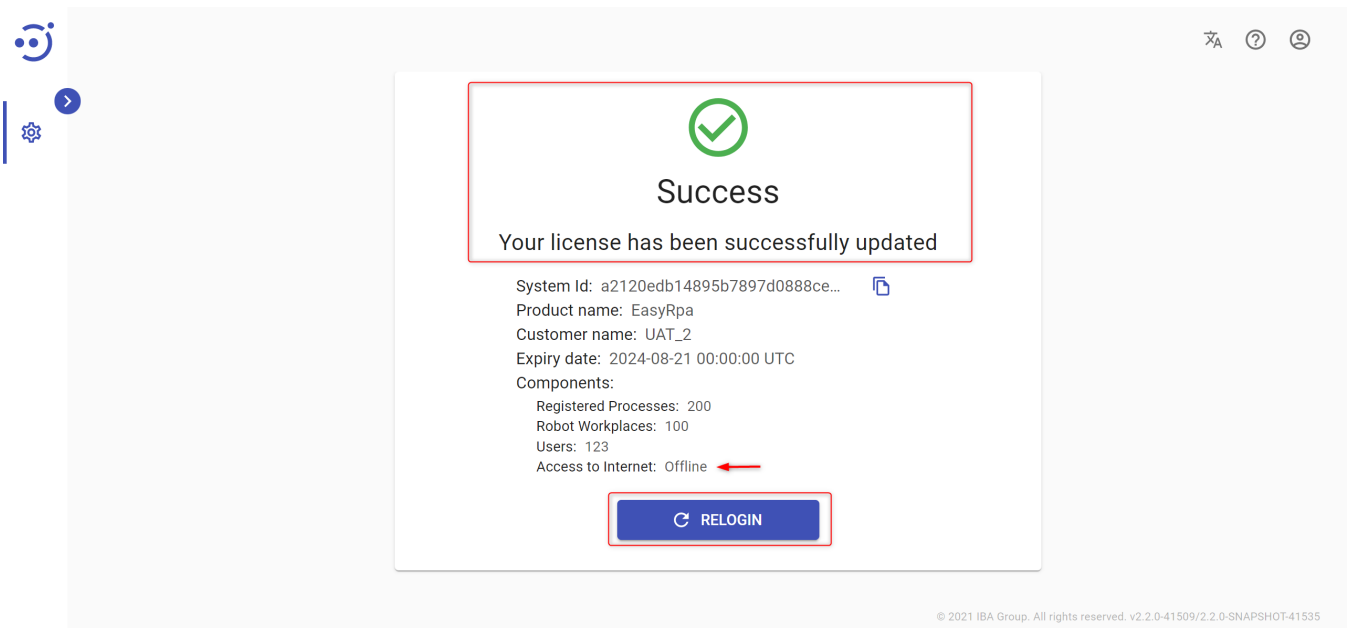
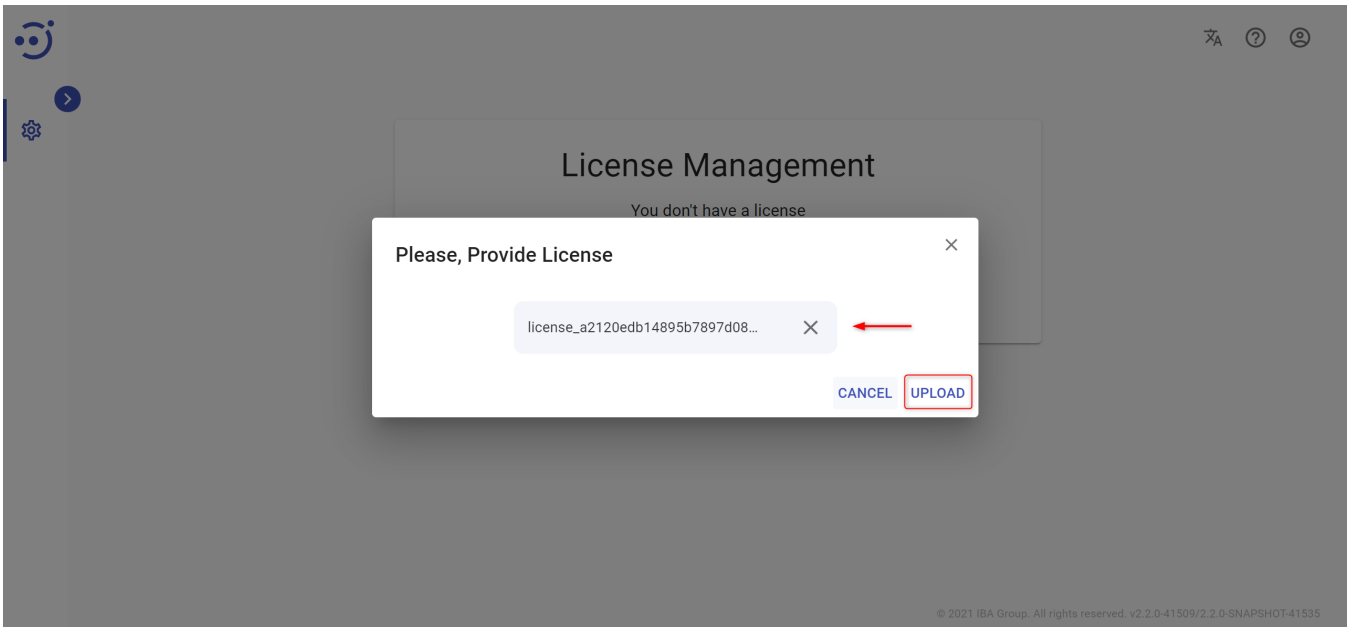
Please, Provide License



Please, provide license file

ADD

CANCEL UPLOAD



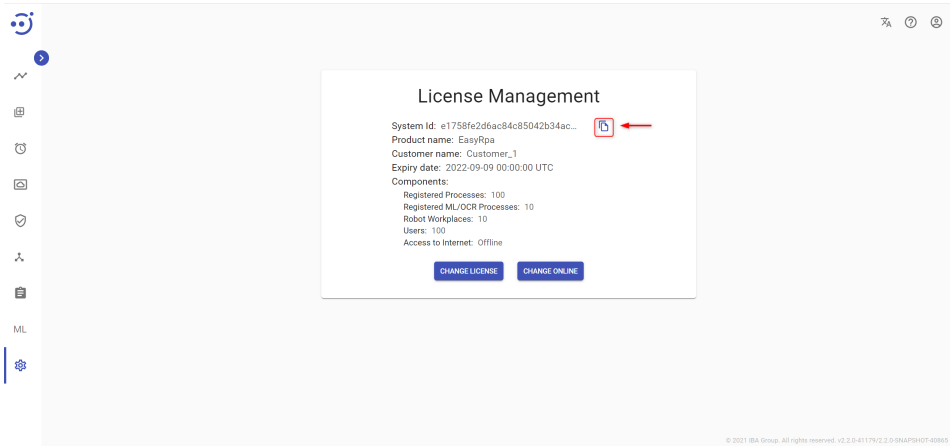
Replace the License

There are 2 ways to replace the current license depending on the type of license access (Offline or Online).

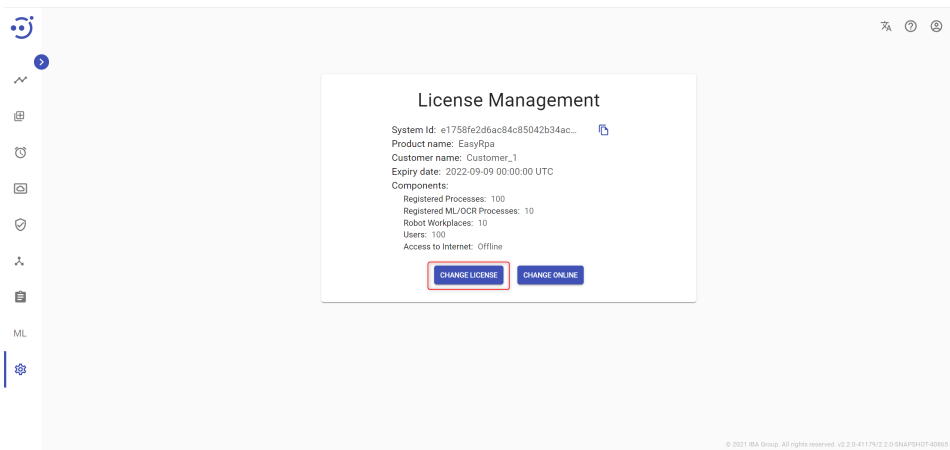
Offline License

To replace the Offline License, you need to:

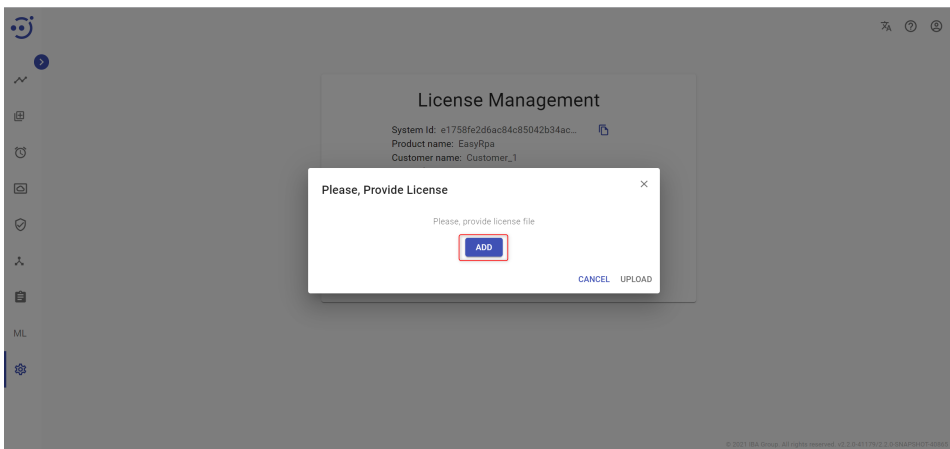
1. Click the **Copy System Id** icon.



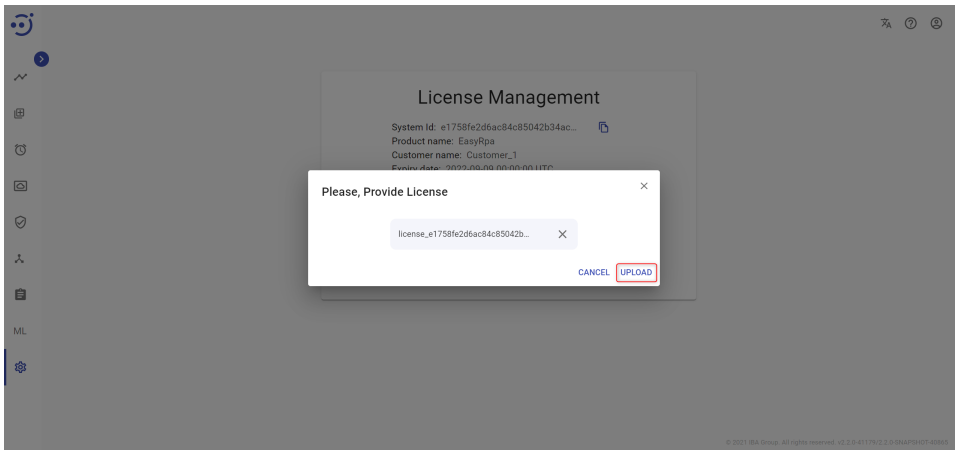
2. Create a new Instance in the License Manager. See [Create a New Instance](#).
3. Click **Change License**.



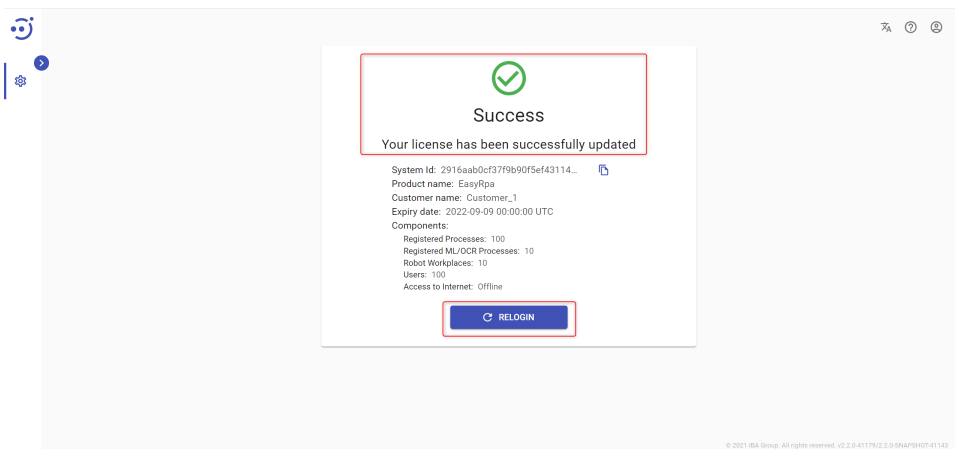
4. Click **Add** and choose the downloaded license file from the file system.



5. Click **Upload**.



6. As a result, the Success message will appear.
7. Click **Relogin** to apply the license and login to the EasyRPA Control Server.

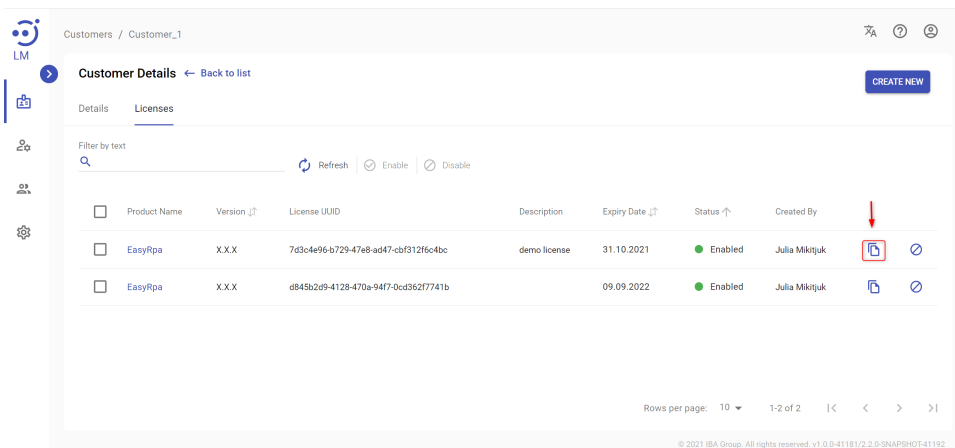


⚠️ If any changes have been made to the Offline license, you need to re-export the license file from the License Manager and replace the license file in the EasyRPA Control Server License Management module.

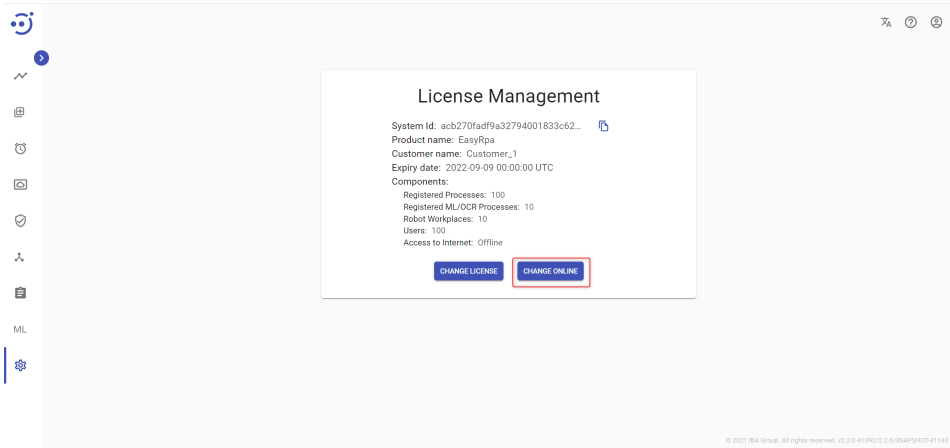
Online License

To replace the Online License, you need to:

1. **Copy** the appropriate **License UUID** from the License Manager Customer Details.

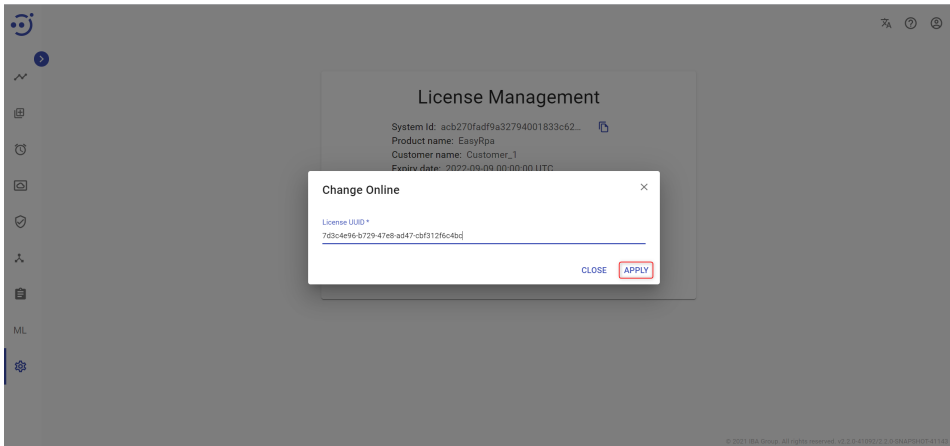


2. Click **Change License**.



3. **Paste** the copied **License UUID** to the Change Online dialog.

4. Click **Apply**.



5. As a result, the **Success** message will appear.

6. Click **Relogin** to apply the license and login to the EasyRPA Control Server.

